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ePoster #26 | Case Report | Clinical Science | Colon and Rectal Surgery

A Report of Colonic Anastomotic Dehiscence Linked to Sevelamer Use

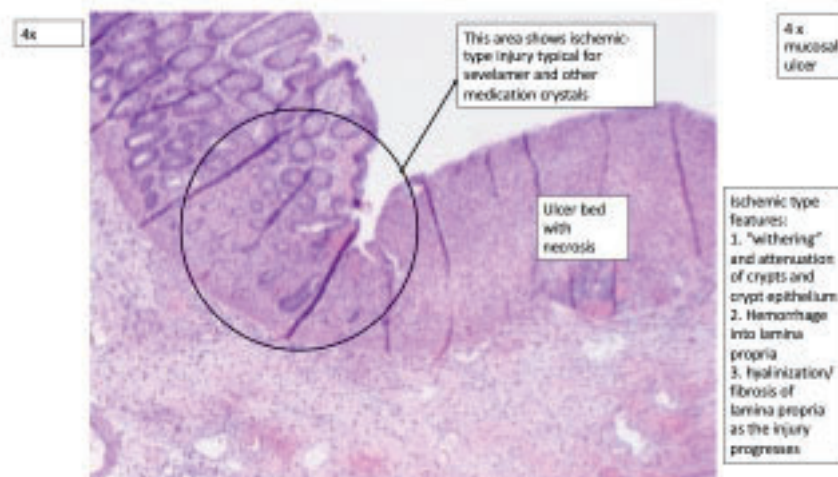
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Introduction/Objective: We present a rare case of sevelamer-associated colonic perforation in a patient without end-stage renal disease (ESRD) after bowel anastomoses.

Case Presentation: A 65-year-old female presented with a 30-pound unintentional weight loss and bilateral lower extremity edema was found to have a 28 cm pelvic mass causing bilateral hydronephrosis. Given her hyperphosphatemia, she was initiated on sevelamer. Following bilateral nephrostomy tube placement, she underwent tumor excision via radical hysterectomy with en bloc low anterior resection. Postoperatively, she developed an anastomotic leak requiring emergent washout and end colostomy creation. Pathology revealed bowel wall necrosis and ulceration with crystalline material deposition consistent with sevelamer resin. She was ultimately discharged and started chemotherapy for metastatic endometrial cancer.

Discussion: Sevelamer is a non-calcium, non-metal phosphate binder that works in the GI tract and is used in chronic kidney disease patients. Common side effects include GI intolerance, abdominal pain, and constipation. Rare complications such as intestinal ulceration and perforation have been reported in the literature. These are believed to result from deposition of sevelamer crystals causing tissue inflammation beginning at the mucosa. Incidence rates are unknown, but a recent review found 28 reported cases in the literature. On histopathology, there is a characteristic fish-scale appearance. Similar phenomena can be seen with other sequestering agents such as cholestyramine and sodium polystyrene.

Conclusion: This case highlights the potential for bowel perforation associated with sevelamer use. Awareness of sevelamer-associated gastrointestinal injury is essential, as early recognition and prompt discontinuation of the medication may help prevent serious complications such as ulceration and perforation.



ePoster #27 | Abstract | Clinical Science | Colon and Rectal Surgery

ChatGPT and Inflammatory Bowel Disease: A Pilot Study of Guideline Adherence and Clinical Agreement

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Background: Inflammatory bowel disease (IBD) presents complex management challenges. While care is guided by expertise and guidelines, artificial intelligence (AI) is being explored as an adjunct. This study evaluates ChatGPT-5o's ability to provide IBD recommendations by comparing its outputs with real-world decisions and European Crohn's and Colitis Organisation (ECCO) guidelines.

Objective: To assess the AI capability to suggest IBD treatment and comparison with current guidelines.

Methods: We performed a retrospective analysis of 19 anonymized IBD cases spanning initial and complicated disease. ChatGPT-5o generated management recommendations, which were compared with clinician treatments and ECCO guidelines across seven therapeutic domains (5-ASA, steroids, antibiotics, thiopurines, anti-TNF, anti-integrins, anti-IL-23) plus diagnostic workup, symptom management, surgical consultation, and monitoring. Agreement was quantified using Cohen's kappa.

Results: ChatGPT-5o showed perfect agreement ($\kappa = 1.000$) with providers and/or guidelines for antibiotics, diagnostic workup, symptom management, surgical consultation, monitoring, and anti-IL-23. Substantial agreement ($\kappa \sim 0.6-0.8$) was observed for 5-ASA and steroids. Moderate to fair agreement ($\kappa \sim 0.3-0.5$) occurred for anti-TNF and anti-integrins, reflecting variability in complex scenarios. Thiopurines demonstrated the lowest concordance, with none-to-slight agreement in human-AI comparisons but higher alignment of ChatGPT-5o with ECCO, suggesting evolving practice patterns and safety considerations.

Conclusion: ChatGPT-5o closely aligns with clinicians and ECCO guidelines in multiple standardized domains, supporting its potential as a decision-support tool to enhance guideline adherence and broaden access to IBD expertise. Variability in biologic selection and thiopurine use underscores the need for expert oversight and patient-specific judgment. Prospective studies should assess longitudinal outcomes and integration strategies to ensure safe, patient-centered deployment.

Table 1: Summary of Cohen's Kappa Agreement for Each Category

Category	Human vs. Guidelines Kappa	Human vs. ChatGPT Kappa	ChatGPT vs. Guidelines Kappa	Agreement Level	Significance
5-ASA	0.689	0.689	0.604	Substantial	Yes
Steroids	0.406	0.578	0.771	Moderate to Substantial	Yes
Anti-TNF	0.289	0.345	0.685	Fair to Substantial	Yes
Anti-Integrins	0.486	0.336	0.771	Fair to Substantial	Yes
Anti-IL23	1.000	1.000	1.000	Perfect	Yes
Thiopurines	0.441	0.313	0.771	Fair to Substantial	No
Antibiotics	0.642	1.000	1.000	Substantial to Perfect	Yes
Diagnostic Workup	1.000	1.000	1.000	Perfect	Yes
Symptom Management	—	1.000	1.000	Perfect	Yes
Surgical Consult	—	1.000	1.000	Perfect	Yes
Continuous Monitoring	—	1.000	1.000	Perfect	Yes

ePoster #28 | Abstract | Clinical Science | Colon and Rectal Surgery

Robotic Versus Laparoscopic Colorectal Surgery: A Systematic Review and Meta-Analysis of 259,476 Patients

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Background: The use of robotic surgery in colorectal procedures is on the rise, with the goal of enhancing accuracy and improving perioperative outcomes when compared to traditional laparoscopy. However, its true clinical advantage remains debated.

Objective: To evaluate key perioperative outcomes of robotic versus laparoscopic colorectal surgery, including surgical site infection (SSI), conversion, morbidity, mortality, anastomotic leak, postoperative ileus, readmissions, reoperations, and complication severity according to the Clavien–Dindo scale.

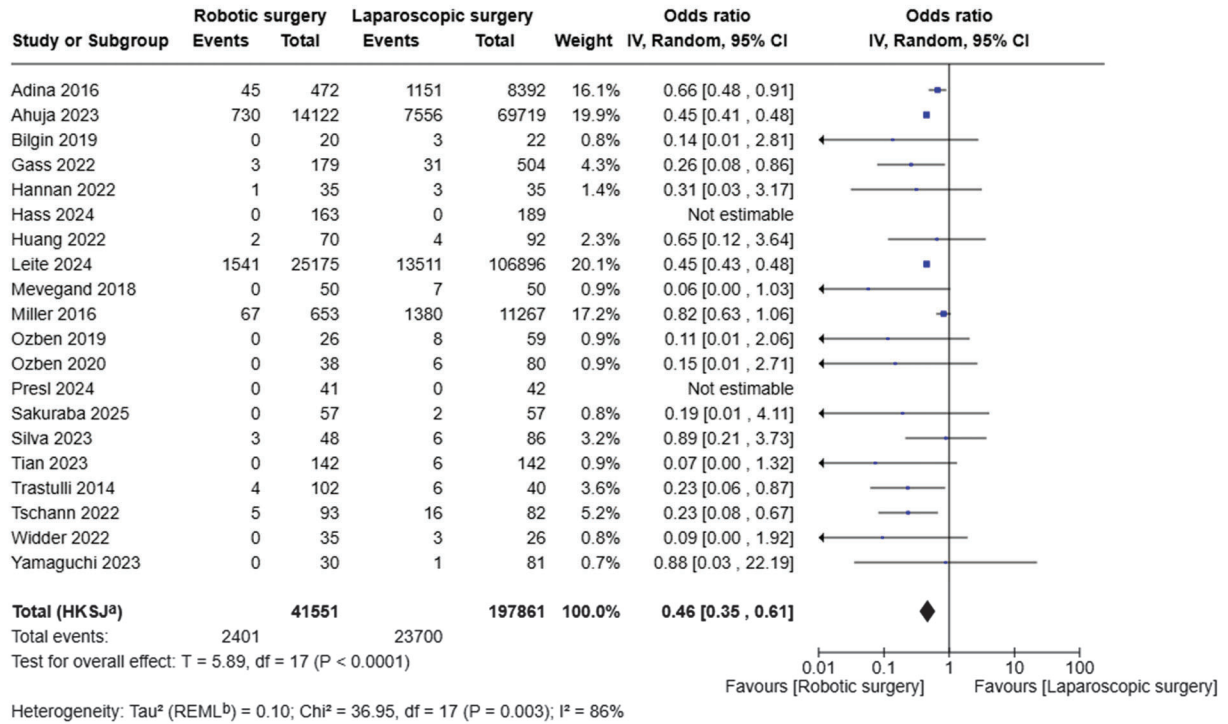
Methods: We systematically searched MEDLINE (PubMed), Embase, Scopus, Web of Science, and the Cochrane Library up to September 2025. Comparative studies directly reporting outcomes of robotic versus laparoscopic colorectal surgery were eligible. A total of 32 studies published between 2013 and 2025, comprising 259,476 patients, were included. Data extraction followed PRISMA guidelines. Analyses were performed with RevMan 5.4. For dichotomous outcomes, risk ratios (RRs) with 95% confidence intervals (CIs) were calculated; for continuous outcomes, mean differences (MDs) or standardized mean differences (SMDs) were used. Pooled effects were estimated with random-effects models. Statistical significance was set at $p < 0.05$. Heterogeneity was assessed using Cochran's Q and Higgins' I^2 statistic.

Results: Robotic surgery demonstrated significant perioperative advantages, markedly reducing conversion to open surgery (OR 0.46, 95% CI 0.35–0.61, $p < 0.0001$, $I^2 = 86\%$), overall morbidity (RR 0.86, 95% CI 0.83–0.88, $p < 0.0001$, $I^2 = 0\%$), and the risk of SSI (RR 0.78, 95% CI 0.64–0.94, $p = 0.009$, $I^2 = 18\%$). There was no statistically significant difference in mortality (RR 0.95, 95% CI 0.85–1.06, $p = 0.31$, $I^2 = 32\%$), supporting the comparable safety of both approaches. Anastomotic leak showed no significant difference in either the global analysis (RR 1.08, 95% CI 0.78–1.50, $p = 0.63$, $I^2 = 71\%$) or intracorporeal versus extracorporeal techniques (RR 0.96, 95% CI 0.55–1.67, $p = 0.89$, $I^2 = 0\%$). Similarly, postoperative ileus (RR 0.98, 95% CI 0.85–1.12, $p = 0.75$, $I^2 = 40\%$) and Clavien–Dindo complications (low-grade: RR 1.07, $p = 0.46$; high-grade: RR 0.92, $p = 0.63$; overall: RR 1.04, $p = 0.60$, $I^2 = 0\%$) were equivalent. While robotic surgery was associated with increased readmissions (RR 1.20, 95% CI 1.14–1.27, $p < 0.00001$, $I^2 = 0\%$) and reoperations (RR 1.33, 95% CI 1.12–1.58, $p = 0.001$, $I^2 = 24\%$), these drawbacks are modest compared to the consistent perioperative benefits observed.

Conclusion: Robotic colorectal surgery demonstrates clear perioperative advantages, including significantly lower conversion rates, morbidity, and SSI, with comparable outcomes for mortality, anastomotic leak, ileus, and complication severity. Although modest increases in readmission and reoperation were noted, these are outweighed by consistent perioperative benefits. Limitations include study heterogeneity, reliance on observational

data, and variability in surgical techniques. Further high-quality randomized trials are needed to validate and expand these findings.

Forest Plot – Conversion to open surgery (Robotic surgery vs Laparoscopic surgery)



Footnotes

^aCI calculated by Hartung-Knapp-Sidik-Jonkman method.
^bTau² calculated by Restricted Maximum-Likelihood method.

Figure 1. Comparing Conversion to open surgery between Robotic surgery and Laparoscopic surgery.

ePoster #29 | Case Report | Clinical Science | Colon and Rectal Surgery

Gastrointestinal Histoplasmosis Causing Colonic Obstruction: A Diagnostic Challenge in Immunosuppression

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Introduction/Objective: Disseminated histoplasmosis is an opportunistic infection in immunocompromised hosts, particularly in endemic regions. While pulmonary manifestations are common, gastrointestinal (GI) involvement is rare and can mimic other pathologies. We present a case of GI histoplasmosis in a renal transplant patient.

Case Presentation: 67-year-old male with a history of kidney transplant and diabetes presented for anemia workup. Initial colonoscopy revealed ulcerations in the ascending colon, with pathology initially interpreted as CMV colitis. Anemia persisted despite antiviral therapy and immunosuppressive adjustment. He subsequently presented with abdominal pain and anemia (Hb 7.4). A repeat colonoscopy identified a 5 cm, partially obstructing mass at the hepatic flexure for which he underwent a right hemicolectomy with end ileostomy.

Surgical pathology demonstrated fungal elements and PCR confirmed *Histoplasma capsulatum*. Workup also revealed positive cryptococcal antigen and cavitary lung lesion confirming disseminated disease. He was treated with a 2-week course of amphotericin B, followed by oral voriconazole.

Discussion: This case highlights the diagnostic challenge of histoplasmosis. It can present as a mass-forming lesion indistinguishable from malignancy; literature reviews note approximately 18% of histoplasmosis cases misdiagnosed as malignancies were in the GI tract. The ileum and colon are common sites due to abundant lymphoid tissue. Misdiagnosis as more common conditions like CMV colitis leads to diagnostic delays.

Conclusion: A high index of suspicion for disseminated fungal infections is crucial in immunocompromised patients from endemic areas, especially when symptoms persist despite standard therapy. Prompt, multidisciplinary evaluation is essential for diagnosis and managing complications like obstruction.

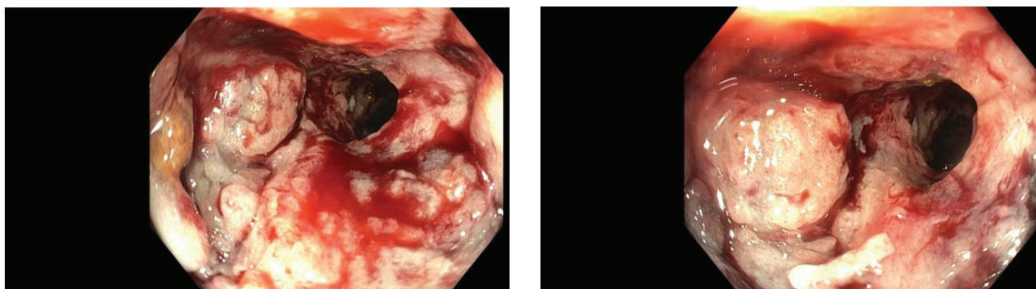


Figure: Images from colonoscopy of fungating, partially obstructing hepatic flexure colonic mass

ePoster #30 | Abstract | Clinical Science | Breast

Subpectoral vs. Prepectoral Tissue Expander Placement in Breast Reconstruction: A Systematic Review and Meta-Analysis

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Background: The optimal plane for tissue expander (TE) and implant placement in breast reconstruction remains debated, with mixed evidence comparing subpectoral and prepectoral techniques.

Objective: This meta-analysis evaluates postoperative complications and patient-reported outcomes between subpectoral and prepectoral TE placement.

Methods: PubMed, Scopus, and Web of Science were searched following PRISMA guidelines. Eligible observational studies compared the two TE planes and reported at least one primary outcome (surgical complications). Secondary outcomes included BREAST-Q scores, hospital stay, time to expansion completion, and drain removal. Data were analyzed using Review Manager 5.4. Risk ratios (RR) and mean differences (MD) were calculated with 95% confidence intervals (CI). Heterogeneity was assessed using I², applying random-effects models when significant.

Results: Twenty-three studies (10,476 TEs) met inclusion criteria. Subpectoral TE placement showed a lower risk of seroma (RR = 0.67, 95% CI 0.53–0.85, $p = 0.0009$) and wound dehiscence (RR = 0.74, 95% CI 0.56–0.97, $p = 0.03$) but resulted in a longer hospital stay (MD = 0.08 days, 95% CI 0.05–0.12, $p < 0.00001$) and time to complete expansion (MD = 24.66 days, 95% CI 15.39–33.92, $p < 0.00001$). No significant differences were found for hematoma, infection, necrosis, implant loss, readmission, malposition, capsular contracture, reoperation, BREAST-Q scores, or drain duration. Three studies reported lower pain scores with prepectoral placement, though heterogeneity precluded pooling.

Conclusion: Subpectoral TE placement may reduce seroma and wound dehiscence, while prepectoral placement offers shorter hospitalization, faster expansion, and less pain. Overall complication rates and satisfaction appear comparable between techniques.

ePoster #31 | Abstract | Clinical Science | Breast

Multicenter Pooled Comparative Analysis of Clinical and Economic Outcomes with AlloDerm® versus Cortiva® in 1,180 Breast Reconstructions

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Background: AlloDerm® and Cortiva® are two commonly used human acellular dermal matrices (ADMs) for prosthetic breast reconstruction, yet their comparative clinical performance remains uncertain.

Objective: To systematically compare short-term clinical outcomes, patient-reported physical well-being, and peri-operative resource use between AlloDerm and Cortiva in immediate or delayed prosthetic breast reconstruction.

Methods: A systematic search of PubMed, Scopus, and Web of Science (inception – June 15, 2025) identified comparative studies of AlloDerm versus Cortiva. PRISMA 2020 guidelines were followed. Studies were included if they provided comparative data on complications, BREAST-Q scores, or cost. Random-effects meta-analyses estimated mean differences (MD) for continuous variables and odds ratios (OR) for binary outcomes. Heterogeneity was quantified with I². Cost data (reported heterogeneously) were summarized narratively.

Results: Five studies (one blinded randomized trial, one small interim RCT, three propensity-matched or retrospective cohorts) comprising 1,180 breast reconstructions in 1,072 patients met the inclusion criteria. Across all endpoints, no statistically significant differences were observed between the two ADMs in terms of complication rates and BREAST-Q scores. Four studies presented cost information. Two detailed economic evaluations showed that Cortiva's acquisition price was 10–22 % lower per sheet and translated into a 44–56 % reduction in total per-breast episode cost when operative and complication-related expenses were included.

Conclusion: Current evidence shows no clear difference between AlloDerm and Cortiva in terms of clinical outcomes but identifies a potential cost advantage for Cortiva. Pending long-term data, Cortiva represents the more economical choice.

ePoster #32 | Abstract | Clinical Science | Colon and Rectal Surgery

Assessing Colorectal Anastomotic Perfusion: A Comparison Between Oxygen Saturation Imaging and Indocyanine Green Angiography

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Background: Confirming perfusion to the anastomosis is a crucial step in colorectal surgery to prevent anastomotic leak. Indocyanine green (ICG) is widely used to evaluate perfusion to the anastomosis but may be limited by contrast allergy or supply shortage. Oxygen saturation imaging (OSI) is a multispectral imaging-based system that offers real-time assessment of tissue oxygen saturation (StO₂) without contrast injection.

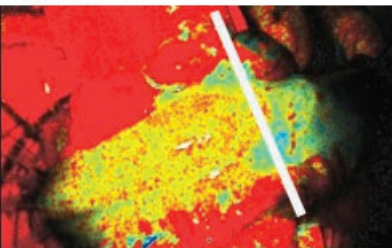
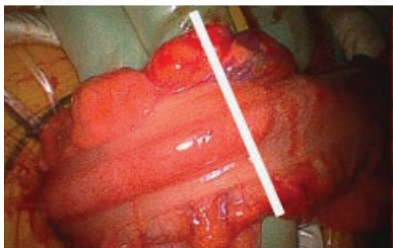
Objective: To compare OSI to ICG in evaluating the perfusion of colorectal anastomosis and to evaluate quantitative StO₂ differences between perfused and less-perfused bowel.

Methods: A retrospective case series was performed at a single academic tertiary referral center. Patients undergoing colorectal surgery requiring an anastomosis underwent perfusion assessment of a segment of bowel before transection and creation of an anastomosis using OSI and ICG. Cases where a demarcation line (DL) was apparent between perfused and less-perfused bowel were included. StO₂ levels in the perfused and less-perfused sides were measured postoperatively.

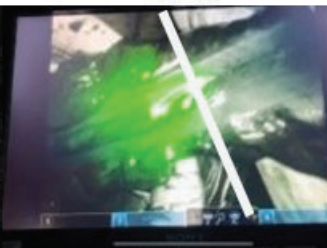
Results: Nineteen patients underwent colorectal surgery between 7/2023-5/2025 where DLs were identified with OSI. One did not receive ICG due to allergy, and ICG failed to show DL in another due to venous backflow. Concordance between OSI and ICG was observed in 17 of 18 evaluable cases (94.4%). Serosal StO₂ data was available in 18 patients. Mean serosal StO₂ was 77.1% ± 10.6 in well-perfused bowel and 42.1% ± 17.7 in less-perfused bowel (p < 0.001).

Conclusion: OSI demonstrates high concordance with ICG angiography for assessing bowel perfusion in colorectal surgery and provides quantitative, contrast-free evaluation of tissue oxygenation.

Oxygen Saturation Imaging



ICG Imaging



Robotic Appendectomy for Low-Grade Appendiceal Mucinous Neoplasm Using the Da Vinci Xi System

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Background: Appendiceal mucoceles are rare lesions that may harbor neoplastic potential. Complete surgical excision is the treatment of choice to prevent rupture and peritoneal dissemination. Advances in robotic technology, particularly with the Da Vinci Xi platform, have enhanced precision, visualization, and control during minimally invasive procedures for rare appendiceal neoplasms.

Objective: To demonstrate the step-by-step technique and outcomes of a robotic-assisted appendectomy for a low-grade appendiceal mucinous neoplasm (LAMN), emphasizing key technical considerations and educational value for robotic surgical training.

Methods: CT scan revealed a distended appendix consistent with a mucocele. The patient underwent a robotic appendectomy using a four-port Da Vinci Xi setup: a 12 mm umbilical camera port—also utilized for specimen retrieval—and three 8 mm robotic working ports. The mesoappendix was dissected to the cecal base, and the appendix was transected with a 60 mm Endo GIA stapler. The specimen was retrieved intact in an Endo Catch bag through the umbilical port to prevent spillage.

Results: The procedure was completed without complications. Operative time was uneventful with minimal blood loss. Pathology confirmed a 9.5 cm LAMN confined to the muscularis propria with negative margins and no evidence of carcinoma. The patient had an uncomplicated recovery and was discharged home in good condition.

Conclusion: Robotic appendectomy for LAMN using the Da Vinci Xi system is safe and feasible. The robotic platform offers enhanced visualization, dexterity, and secure specimen handling, supporting its role in the management of rare appendiceal tumors.

ePoster #34 | Case Report | Clinical Science | Thoracic Surgery

Foregut perforation after initiation of a GLP-1 agonist: a case series

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Introduction/Objective: The use of GLP-1 agonists for the treatment of obesity is rapidly increasing. Side effects of GLP-1 agonists include vomiting and gastroparesis. Esophageal and gastric perforation as a complication of GLP-1 agonists has not been reported. We describe two cases of foregut perforations due to Boerhaave's syndrome and gastric outlet obstruction in patients who recently started GLP-1 agonists.

Case Presentation: Patient A is a 66-year-old female with a history of a Toupet fundoplication for reflux who presented with chest pain and pneumomediastinum two weeks after starting tirzepatide. The patient had a gastric food bezoar causing gastric outlet obstruction and perforation of the fundus at the hiatus (Figure 1A). She was managed by primary repair of the gastric perforation and discharged on post-operative day 13. Patient B is a 62-year-old female who presented in severe septic shock following intractable emesis one day after starting semaglutide. The patient had a perforation of the left lateral distal esophagus consistent with Boerhaave's syndrome (Fig. 1B). She was managed by primary repair of the esophageal perforation and discharged on post-operative day 17.

Discussion: While gastroparesis and recurrent emesis are reported side effects of GLP-1 agonists, progression to perforation has not been reported. We report the first cases of esophageal and gastric perforations shortly after starting GLP-1 agonists.

Conclusion: These cases highlight a possible link between GLP-1 agonists and foregut perforation. A high index of suspicion for these rare but severe complications should be maintained in all patients recently started on GLP-1 agonists.

A



B



Management of Massive Upper GI Bleed from Jejunal Diverticulum in a Rural Hospital

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Introduction/Objective: Although gastrointestinal diverticulosis is most commonly found in the colon, small bowel diverticulosis is more rare, affecting only up to 1.5-2.3 % of the population. Amongst small bowel diverticulosis, the duodenum is most common location (76.5%) followed by jejunum (23.5%). While most small bowel diverticula remain asymptomatic, a potential life-threatening complication is severe gastrointestinal hemorrhage. Diagnosing and managing small bowel bleeding is challenging due to limited accessibility and scarce advanced diagnostic tools, especially in rural or resource-limited settings. This report describes a 70-year-old male with jejunal diverticular bleeding successfully managed with endoscopic intervention at a rural community hospital, highlighting an innovative adaptable approach in a resource-limited environment.

Case Presentation: A 70-year-old male presented with rectal bleeding and anemia (hemoglobin 6.5 g/dL). After transfusions and empiric treatment with PPI drip and Sucralfate, bleeding persisted. EGD and colonoscopy were non-diagnostic, but CTA and tagged RBC imaging localized the source to the proximal jejunum. Without advanced enteroscopy equipment and inability to transfer patient to higher level of care, the general surgeon performed a push enteroscopy using a pediatric colonoscope and discovered the bleeding source which was an actively bleeding visible vessel within a proximal jejunal diverticulum. The bleeding vessel within the diverticulum was successfully treated with bipolar cautery, hemoclip, submucosal epinephrine, and tattooed. The patient was stabilized and underwent elective laparoscopic small bowel resection of tattooed jejunal diverticulum to prevent future bleeding. The patient recovered successfully and was discharged home 2 days later. At 6 month follow up he continues to do well without any recurrence of bleeding.

Discussion: This case highlights the rarity of jejunal diverticular bleeding and the difficulty of its diagnosis and management in resource-limited hospitals. Current guidelines recommend stepwise localization techniques; however, capsule endoscopy and angiography may be unavailable or contraindicated in unstable patients. Pediatric colonoscopes provide a practical alternative for push enteroscopy, allowing diagnostic and therapeutic intervention in the proximal jejunum. In this scenario a rural general surgeon was able to perform EGD, colonoscopy, push enteroscopy for localization and control of hemorrhage, and ultimately definitive laparoscopic resection of bleeding diverticulum. This can be replicated at other rural hospitals that have limited or lack advanced GI capabilities, interventional radiology, etc. Adaptable approaches like this are critical for effective care when advanced modalities are inaccessible.

Conclusion: In settings with limited resources, pediatric colonoscope-assisted push enteroscopy represents a viable and effective alternative for both the diagnosis and management of small bowel hemorrhage. Its smaller caliber and increased flexibility allow for safe navigation into the proximal jejunum, providing a practical means of achieving

hemostasis when advanced enteroscopic or interventional modalities are unavailable. This case underscores the importance of tailoring diagnostic and therapeutic strategies to the patient's clinical urgency and the institution's available capabilities. By adapting techniques and utilizing existing equipment creatively, clinicians in rural or resource-limited hospitals can deliver timely, effective care for life-threatening small bowel bleeding, ultimately improving patient outcomes and expanding the scope of care achievable in these environments.

ePoster #36 | Case Report | Clinical Science | Vascular Surgery

Blunt Trauma Precipitating Arterial Thoracic Outlet Syndrome: A Case Report

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Introduction/Objective: Arterial thoracic outlet syndrome (aTOS) is typically associated with congenital anomalies, leading to chronic arterial compression and thromboembolic complications. Acute aTOS resulting from blunt trauma is rare.

Case Presentation: A 39-year-old man was involved in an MVC, sustaining polytraumatic injuries including a grade I splenic laceration and acute thrombosis of the left subclavian artery adjacent to an undiagnosed hypoplastic cervical rib with an overlying seatbelt sign. The patient was transferred to our center with absent signals in the ulnar artery with sensory deficits.

Discussion: Due to concomitant traumatic injuries, nonoperative management with systemic anticoagulation was not feasible. We performed emergent exploration with cervical rib resection via supraclavicular exposure, resection of the injured subclavian artery segment with end-to-end anastomosis, and embolectomy of the subclavian and brachial arteries via an infraclavicular exposure with return of triphasic signals and normalization of exam. His course was complicated by possible hypercoagulable or vasospastic events with filling defects in the SMA, internal iliac, internal carotid artery, and the axillo-subclavian embolectomy site. Postoperatively, he developed progressive upper extremity sensorimotor deficits managed with re-exploration and subclavian-axillary bypass using prosthetic conduit. His exam normalized; he was discharged on hospital day 6 with aspirin and therapeutic anticoagulation. At 5-months, patient retained grossly normal sensorimotor function with a patent bypass on surveillance.

Conclusion: We highlight a rare presentation of blunt trauma-induced aTOS in the setting of an undiagnosed cervical rib treated with operative decompression and reconstruction. Recurrent thrombosis distal to the primary repair required bypass reconstruction to maintain limb perfusion.

ePoster #37 | Case Report | Clinical Science | Thoracic Surgery

Recurrent diaphragmatic hernia repair with incarcerated bowel requiring bowel resection and latissimus flap reconstruction: A case of recurrent congenital diaphragmatic hernia

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Introduction/Objective: In the United States, rates of recurrent congenital diaphragmatic hernia requiring surgical re-exploration are not reliably captured due to varying factors by defect size and repair technique. Some studies report recurrence rates from 4% to over 50%. We report a rare case of recurrent congenital diaphragmatic hernia containing incarcerated bowel, with final defect repair by rotational latissimus flap.

Case Presentation: A 22-year-old male with history of dextrocardia and infantile right congenital diaphragmatic hernia repair, requiring second repair for recurrence at 4-months-old, presented with abdominal pain and nausea. Imaging revealed right diaphragmatic hernia recurrence containing colon causing partial mechanical bowel obstruction. After failed symptomatic resolution with conservative management, he underwent exploratory laparotomy with reduction of incarcerated bowel, right hemicolectomy. Diaphragmatic defect was found to be with imbedded mesh. Decision was made to leave abdomen open after intra-operative consultation with plastic surgeon for flap repair of diaphragmatic defect. After complicated post operative course requiring creation of end ileostomy for anastomotic leak, patient's diaphragmatic defect was closed by latissimus flap with rotation into right chest. Remainder of hospital course was uneventful with patient discharging home. Follow up after 6 months, CT of the chest showed no diaphragmatic hernia and patient remains asymptomatic at this time.

Discussion: Recurrent congenital diaphragmatic hernias vary in clinical presentation. Evidence regarding success rates between synthetic mesh versus muscle flap is conflicting.

Conclusion: Reverse latissimus dorsi (RLD) muscle flap repair has several benefits: (1) sustained blood supply by lumbar-perforating vessels minimizing flap atrophy, potential for 'neo diaphragmatic' function enabled by a phrenic to thoracodorsal neural anastomosis and ability to grow with the child.