

Poster #1a | Bariatric Surgery | Case Reports/Case Series

Incidental Desmoid Tumor During Roux-En-Y Gastric Bypass

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Introduction: As the number of bariatric surgeries increases, the more incidental findings such as GISTs, gastric polyps and adenocarcinomas are identified. Desmoids are rare, locally aggressive tumors. We present a case of a patient with an incidentally discovered desmoid tumor during robotic Roux-En-Y Gastric Bypass.

Case Presentation: A 56-year-old female with a BMI of 45.7 kg/m² underwent extensive preoperative evaluation in a bariatric clinic, including dietary, psychological, and exercise counseling, before proceeding with planned robotic Roux-en-Y gastric bypass (RYGB). After creation of a 30 mL gastric pouch and reflection of the transverse colon, attempted identification of the ligament of Treitz revealed a small bowel mass densely adherent to the mesentery near the proximal jejunum. Intraoperative consultation with the hepatobiliary surgery team prompted discontinuation of the planned RYGB. A gastro-gastrostomy and mesenteric biopsy were performed instead. The patient tolerated the procedure well and was discharged on postoperative day three.

Subsequent computed tomography (CT) imaging demonstrated a 2.3 x 2.2 cm exophytic mass arising from a jejunal loop in the left upper quadrant, containing a small central focus of gas. Initial mesenteric biopsy pathology revealed only fibroconnective tissue. Further evaluation with esophagogastroduodenoscopy (EGD) and endoscopic ultrasound (EUS) failed to identify the lesion. The case was reviewed at multidisciplinary tumor board, where concern remained for a low-grade malignancy, leading to recommendation for operative exploration.

The patient subsequently underwent robotic diagnostic laparoscopy with successful identification of a proximal jejunal mass near the ligament of Treitz. Small bowel resection with end-to-side anastomosis was completed without complication. Final pathology demonstrated a desmoid tumor. This case highlights the rare occurrence of incidental mesenteric masses during bariatric surgery and demonstrates the utility of robotic-assisted intervention in complex small bowel mass excision.

Poster #1b | Bariatric Surgery | Case Reports/Case Series

Petersen's Hernia Following Roux-En-Y Gastric Bypass (RYGB)

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Introduction: Roux-en-Y Gastric Bypass (RYGB) patients are at risk of creating potential spaces for internal hernias. We present a case of a patient with internal hernia from Petersen's defect a year following a RYGB.

Case Presentation: A 50-yr old female underwent Roux-en-Y gastric bypass after appropriate multidisciplinary bariatric evaluation, including dietary, psychological and exercise counseling. The index operation was uncomplicated, and the patient initially recovered well postoperatively. More than a year later, she presented to the surgical service with acute onset diffuse abdominal pain associated with nausea without emesis. She reported significant postoperative weight loss of approximately 150 pounds since her original procedure. On presentation. The patient was hemodynamically stable; afebrile and laboratory values were within normal limits. CT of abdomen and pelvis with intravenous contrast demonstrated a classic mesenteric swirl sign concerning internal hernia. Imaging also suggested diffuse mesenteric edema. Given the concern for bowel compromise, the decision was made to proceed with robotic diagnostic laparoscopy. Upon entering the abdomen, a moderate amount of chylous ascitic fluid was encountered. Further exploration revealed an internal hernia through Petersen's defect, with herniation of small bowel through the mesenteric defect. The bowel was carefully reduced and inspected thoroughly. Fortunately, the bowel appeared viable without evidence of ischemia or perforation. The remaining small bowel was run in its entirety, revealing no additional abnormalities or areas of obstruction. Petersen's defect was subsequently closed. The patient tolerated the procedure well. She recovered without complications and was discharged home on postoperative day two in stable condition with resolution of symptoms and return of normal bowel function. This case highlights that internal hernias through Petersen's defect remain an important late complication following RYGB.

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Robotic Assisted Removal of Band Gastroplasty in Patient with History of Open Roux-en-Y Gastric Bypass (RYGB)

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Introduction: Band gastroplasty is now infrequently used in bariatric surgery. Patients with remote band placement continue to present with complications decades later. Management becomes more challenging in individuals with altered anatomy, especially with history of open RYGB. We present a case of a patient with remote open RYGB who developed progressive obstructive symptoms due to a retained band gastroplasty.

Case Presentation: A 63 year old female with a history of open Roux-en-Y Gastric Bypass (RYGB) 31 years prior was evaluated for a stenotic gastric pouch. Her symptoms included: dysphagia, epigastric pain, nausea, emesis, early satiety, regurgitation, and 43 pound weight loss in a 3 month period. Prior workup, including CT and upper GI series, was unrevealing. A recent EGD demonstrated mild-moderate stricture, dilation to 15 mm, and biopsies that were negative. Due to persistent symptoms, she was taken to the operating room for robotic diagnostic laparoscopy.

After careful dissection of the gastric pouch, a circular band was identified and found to be secured with clips and sutures. The band was excised with no evidence of erosion or injury noted. A bougie was passed through the gastric pouch without resistance. The patient tolerated the procedure well and was discharged home on postoperative day one without complications.

This case underscores the complexity of preoperative bariatric surgery workup in patients with prior open RYGB and longstanding retained devices. It also demonstrates the utility of robotic surgery in reoperative bariatric cases requiring precise and controlled dissection.

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State-Dependent GLP-1 Responsiveness After Bariatric Surgery: Evidence for a GLP-1 Non-Responder to Responder Phenotype

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Introduction: Insufficient weight loss after bariatric surgery and inadequate response to GLP-1 receptor agonists remain important clinical challenges. Although behavioral factors are often implicated, physiologic mechanisms, such as altered satiety signaling and metabolic adaptation, may also contribute to treatment resistance. We describe three patients with prior non-response to both bariatric surgery and GLP-1-based therapy who subsequently achieved clinically meaningful weight loss with combination pharmacotherapy.

Case Presentation: Case 1

A 47-year-old woman with type 2 diabetes (preoperative weight 138.3 kg; peak weight 157.4 kg) demonstrated minimal weight loss despite maximum-dose GLP-1 RA therapy prior to RYGB. Weight at surgery was 125.2 kg. Postoperatively, weight was 131.5 kg at 1 week, 122.5 kg at 1 month, and 120.7 kg at 3 months (~3.6% TBWL), with persistent hunger and absence of early satiety. GLP-1 RA therapy was re-initiated, with subsequent decline to 111.6 kg at 6 months (~10.9% TBWL), reflecting improved responsiveness.

Case 2

A 36-year-old woman with type 2 diabetes (132.9 kg preoperatively after partial GLP-1 response from 160.1 kg) underwent sleeve gastrectomy. At 6 months, weight was 119.3 kg (~10% TBWL), consistent with insufficient weight loss. GLP-1 RA re-initiation was associated with a reduction to 77.1 kg (~35% additional TBWL).

Case 3

A 53-year-old woman with insulin resistance plateaued on dulaglutide preoperatively and underwent sleeve gastrectomy (129.7 kg from a peak of 145.1 kg). At 6 months, weight was 112.9 kg (~13% TBWL), consistent with a suboptimal response. Semaglutide initiation was associated with further weight reduction to 105.7 kg at 10 months (~18.5% TBWL). Discontinuation due to insurance coverage resulted in a weight increase to 112.5 kg (~13.3% TBWL).

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Nesidioblastosis in a Roux-en-Y Gastric Bypass Patient with Post-Bariatric Hypoglycemia

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Introduction: Nesidioblastosis is a proliferation of pancreatic beta cells and islet cell hyperplasia resulting in excessive insulin secretion. Although previously considered a unique diagnosis, this rare pathology is now recognized as a histologic finding in patients with severe post-bariatric hypoglycemia (PBH). It is particularly common among individuals who have undergone Roux-en-Y gastric bypass surgery. Diagnosis requires exclusion of other causes of hypoglycemia, including insulinoma. The gold standard diagnostic test is selective arterial calcium stimulation testing (SACST), which typically demonstrates diffuse endogenous insulin hypersecretion. We present a patient with severe PBH and recurrent admissions for hypoglycemia following Roux-en-Y gastric bypass surgery who was found to have work-up consistent with nesidioblastosis. This case highlights the diagnostic challenges and management considerations associated with severe post-Roux-en-Y gastric bypass hypoglycemia due to nesidioblastosis.

Case Presentation: A 39-year-old female patient with pertinent past medical history including prior gastric sleeve in 2012 with post-surgical complications converted to Roux-en-Y gastric bypass in 2016 is admitted for severe post-prandial hypoglycemia related to PBH. Patient has had several prolonged admissions for hypoglycemia and has failed multiple outpatient therapies. She does wear a continuous glucose monitor that shows her hypoglycemic events are always in the post-prandial period. There is no pancreatic lesion seen on imaging and hypoglycemic labs are not consistent with exogenous insulin or alternative pathology, so patient undergoes SACST which shows pancreatic head and body hyperfunctioning most consistent with nesidioblastosis. Despite strict diet, resumption of acarbose, starting empagliflozin and GLP1 agonist agent, patient continues to have recurrent hypoglycemic events prompting partial pancreatectomy. Pancreatic pathology shows increased islet density consistent with nesidioblastosis. Patient stabilized and eventually discharged on daily Liraglutide, empagliflozin and acarbose with close endocrine follow-up.

Poster #2b | Bariatric Surgery | Research Projects/Case Series

The Preoperative Weight Reduction Paradox: Protective for Major Complications, Increased Infection Risk in Lower BMI Cohorts

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Introductions: Preoperative weight loss is commonly recommended prior to metabolic and bariatric surgery (MBS); however, its impact in higher BMI patients (≥ 50) remains understudied. We hypothesize that preoperative BMI reduction (PBR) is associated with improved outcomes in this population.

Methods: Primary MBS were identified from 1,795,127 records, excluding emergency cases, revisions, conversions, incomplete data, and preoperative BMI < 30 kg/m². PBR was expressed as a percentage of highest BMI.

Data Analysis: Cases with $\geq 5\%$ PBR were matched 1:1 to controls using propensity scores and for operative year, procedure, and highest BMI. Logistic regression assessed outcomes for BMI < 50 and ≥ 50 matched cohorts.

Results: Among 1,316,050 cases, 33% achieved $\geq 5\%$ PBR, which was associated with reduced odds of serious complications (OR 0.88) and prolonged length of stay (LOS > 5 days) (OR 0.90). Patients with BMI ≥ 50 and $\geq 5\%$ PBR had decreased odds of serious complications (OR 0.80), extended LOS (OR 0.81), and readmission (OR 0.96). Patients with BMI < 50 and $\geq 5\%$ PBR had increased occurrence of infection (OR 1.09), reoperation (OR 1.09) and readmission (OR 1.05).

Poster #2c | Bariatric Surgery | Research Projects/Case Series

Liver Biopsy is Safe and Reveals High Prevalence of MASLD/MASH in Metabolic and Bariatric Surgery: Local Outcomes and National Trends

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Introductions: Pre-bariatric surgery, non-invasive assessments of fatty liver disease to determine the presence of Metabolic-associated steatohepatitis (MASH) or advanced liver disease have been shown to be unreliable. We hypothesized that routine liver biopsy (LB) on all patients during metabolic and bariatric surgery (MBS) at an academic center would identify a high prevalence of MASH with minimal operative risk.

Methods: Local and national (MBSAQIP) MBS cases (2020-2023) were analyzed. Patients aged <18 years, open procedures, conversions/revisions, and missing biopsy results (local data) were excluded.

Data Analysis: Local liver biopsy characteristics and case outcomes were examined using logistic regression to assess for postoperative complication risk.

Results: 980 local cases and 695,343 national cases were identified. Local routine LB prevalence was 48%, while national prevalence was only 3.4%. Routine LB revealed steatosis in 71.8%, NASH in 31.6%, and fibrosis in 20.6%. Black race was associated with lower odds of steatosis (OR 0.34), MASH (OR 0.28), and fibrosis (OR 0.45). In contrast, hypertension (OR 1.93) and insulin-dependent diabetes (OR 2.66) were associated with increased MASH risk; hypertension was also associated with increased risk of steatosis (OR 2.05). Postop complications were not different between routine LB and non-LB patients locally ($p>0.05$ for all 30-day outcomes), similar to national findings.

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Nearly 1 in 3 Devastating PVTs Occur Outside the Routine Extended Prophylaxis Window Following Metabolic and Bariatric Surgery

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Introductions: Portal vein thrombosis (PVT) is a potentially devastating complication of metabolic and bariatric surgery (MBS), though its risk factors remain poorly defined due to its low frequency.

Methods: The TriNetX database was queried for patients ≥ 18 years who underwent MBS between 2014-2023. Primary outcomes were PVT incidence and time to PVT within 12 months postoperatively. PVT within 8 weeks was evaluated in sensitivity analyses.

Data Analysis: Descriptive statistics were used to summarize demographic and baseline clinical characteristics. Cox proportional hazards regression models were used to assess risk factors associated with postoperative PVT at 8 weeks and 12 months. The Kaplan-Meier method was used to estimate cumulative incidence and to generate a time-to-event curve for postoperative PVT. Data analyses were conducted using the TriNetX analytics platform, which utilizes tools based on Java, version 11.0.16 (Oracle); R version 4.0.2 (R Project for Statistical Computing); and Python, version 3.7.

Results: Among 97,080 MBS cases, 66% underwent sleeve gastrectomy (SG) and 34% Roux-en-Y gastric bypass (RYGB). PVT occurred in 186 individuals (12-month incidence 0.19%). Relative to RYGB, SG was associated with increased PVT risk at 8 weeks (HR 3.40) and 12 months (HR 2.77). Black race was associated with elevated risk at 8 weeks (HR 1.72) and 12 months (HR 1.71). Additional 12-month risk factors included liver fibrosis/cirrhosis, and prior venous thromboembolism (VTE). Dyslipidemia diagnoses were associated with decreased risk at 8 weeks (HR 0.59) and 12 months (HR 0.60). All HRs were significant ($p < 0.05$). Notably, 83% of PVTs occurred within 8 weeks; 29% occurred > 4 weeks.

Poster #3a | Bariatric Surgery | Research Projects/Case Series

Efficacy of Minimally Invasive Bariatric Surgery Procedures: A Comparative Analysis of Weight Loss and BMI Trajectories

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Introductions: Obesity is closely linked to conditions such as T2DM, cardiovascular disease, OSA, and MASH. This study compares weight loss trajectories and BMI changes following RYGB, SG, and SADI at prospectively defined postoperative intervals.

Methods: Design: Retrospective observational cohort (2024-2025), single-center
Population: 118 patients (60 RYGB, 35 SG, 23 SADI)
Data Collection: Preop baseline = closest weight to surgery; postop weights grouped at 3, 6, 12, 18 months
Outcomes: BMI change, percent total weight loss

Data Analysis: Statistical Analysis: ANOVA/Kruskal-Wallis for unadjusted comparisons; multivariate linear regression adjusting for baseline BMI and comorbidities (HTN, T2DM, OSA, GERD)

Results: 3 months:

RYGB -8.1 ± 2.1 , SADI -8.4 ± 2.5 vs Sleeve -6.4 ± 2.1 kg/m²

6 months:

RYGB -11.4 ± 2.8 , SADI -12.9 ± 3.6 vs Sleeve -8.4 ± 3.3 kg/m²

12 months:

RYGB: highest %TWL ($-31.9 \pm 7.7\%$)

SADI: greatest Δ BMI (-17.4 ± 4.3 kg/m²; %TWL $-30.7 \pm 5.9\%$)

All procedures achieved meaningful weight loss at 3, 6, and 12 months

RYGB and SADI consistently outperformed SG at all timepoints

Differences persisted after adjustment for baseline BMI and comorbidities

RYGB outcomes aligned with published benchmarks ($\sim 32\%$ TWL at 12 months)

SADI patients had higher baseline BMI but achieved the greatest absolute BMI reduction, supporting its role in super-obesity

After adjusting for significant baseline differences, RYGB and SADI demonstrated superior early and mid-term outcomes compared to SG

These findings support individualized procedure selection based on patient-specific characteristics and weight loss goals and reinforce established evidence favoring RYGB and SADI in patients with higher BMI and greater comorbidity burden

Poster #3b | Bariatric Surgery | Research Projects/Case Series

ESP vs TAP Blocks in Post-Operative Opioid Use Reduction

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Introductions: Pain management post surgery is thought to contribute to the opioid crisis. The use of anesthetic blocks in bariatric surgery was evaluated for post-operative pain control and reduction in opioid use in primary bariatric surgery. Our study is in 2 parts: (1) comparison of Erector spinae plane (ESP) block vs no block; (2) comparison of ESP to Transversus abdominis plane (TAP) block.

Methods: Adult patients undergoing minimally invasive primary bariatric surgery, sleeve gastrectomy or gastric bypass, at a single institution were retrospectively analyzed using EMR data. Phase 1 (January 1 - June 30, 2024) compared ESP block's to no block's mean opioid use. Phase 2 (July 1, 2024 - June 30, 2025) compared ESP block's to TAP block's mean opioid use with groups based on surgeon. Differences in means were evaluated with a two tailed t-test.

Data Analysis: Phase 1 had 82 patients (51 no-block, 31 block). Intraoperative block patients had higher MME (36.0 ± 46.9 vs. 18.7 ± 7.2 , $p < 0.001$). Recovery block group had more opioid-free patients (6.4% vs. 2.0%). POD0 block group had lower MME (10.0 ± 4.0 vs. 12.7 ± 5.5 , $p = 0.015$). POD1 block group had more opioid-free patients (48.4% vs. 22.0%, $p = 0.015$). Phase 2 had 134 patients (66 ESP, 68 TAP). Preoperative ESP group had more opioid-free (76.6% vs. 46%). Recovery ESP group had lower MME (7.6 ± 2.77 vs. 9.1 ± 5.31 , $p = 0.009$), but less opioid-free (11.1% vs. 20.3%). POD1 ESP had more opioid-free patients (60.9% vs. 48.4%). New data is currently being analyzed.

Results: Phase 1 showed that there was reduced opioid use on POD0 and POD1 with an ESP block relative to that without block. Phase 2 data show that patients with TAP blocks received a higher MME dose of opioids relative to those with ESP blocks during the recovery period. POD1 with an ESP block had more opioid free patients than that of TAP blocks. These findings suggest that ESP blocks manage pain better with fewer days of opioid requirement post-operatively than that of TAP blocks in primary bariatric surgery.

Poster #3c | Bariatric Surgery | Research Projects/Case Series

Improving VTE Prophylaxis Compliance in Bariatric Surgery via Standardized Risk Assessment

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Introductions: Venous thromboembolism (VTE) is a leading cause of preventable morbidity and mortality following bariatric surgery. Variability in postoperative anticoagulation practices at University Medical Center New Orleans (UMCNO) contributed to inconsistent post-discharge prophylaxis and adverse outcomes. Following multiple postoperative VTE events, a Quality Improvement initiative was implemented to standardize VTE risk stratification at discharge. This study evaluates whether implementation of the St. Luke's VTE Risk Calculator standardizes post-discharge prophylaxis and reduces adverse outcomes in bariatric surgery patients.

Methods: A retrospective review of 428 bariatric surgery patients was conducted at UMCNO over a seven-month period (July 2025–February 2026). Pre-QIP cohort: n=153; Post-QIP cohort: n=275. Surgeons were prompted via two EMR dot phrases to utilize the St. Luke's VTE Risk Calculator on the day of discharge. High-risk patients were prescribed apixaban 2.5mg BID for six weeks. Patients were seen at routine 2-week and 6-week post-operative follow-up visits, at which time complications were assessed and documented in the EMR.

Data Analysis: Chi-square for trend was used to evaluate monthly calculator utilization rates. Fisher's exact test was applied for adverse event comparisons between cohorts. Statistical significance was defined as $p < 0.05$.

Results: Calculator utilization increased from 67.5% at baseline to 100% by study completion ($p < 0.001$), achieved through low-cost EMR workflow integration. VTE/PE incidence decreased from 4.58% (7/153) pre-QIP to 0.36% (1/275) post-QIP, though this did not reach statistical significance. Mortality related to post-operative events decreased from 1.3% to 0.36%. Bleeding events increased from 0.65% (1/153) to 2.18% (6/275), with several requiring re-admission. Pre-QIP demographics among patients with complications: mean BMI 50.03, 87.5% female, mean age 43 years; most common procedures were gastric bypass and sleeve gastrectomy (40% each).

Poster #4a | Obesity Medicine | Research Projects/Case Series

Comparative Analysis of Large Language Model Responses to Patient Questions About GLP-1 Receptor Agonists

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Introductions: Large language models (LLMs) are increasingly being explored as tools for patient education in healthcare settings. However, limited empirical data exists comparing LLM-generated responses to expert-crafted answers for medical questions, particularly regarding response characteristics that affect patient comprehension. This study evaluated and compared the response characteristics of four open-source large language models against human expert-written answers for patient questions about GLP-1 receptor agonist medications.

Methods: We compiled 101 patient-oriented questions about GLP-1 medications, each paired with a expert-reviewed answer (PH, MO, AA). Four LLMs were evaluated: GPT-OSS (20B parameters), LLaMA 3.3 (70B), Qwen3 (14B), and DeepSeek-R1 (14B). Each model responded to all questions under standardized conditions. Response characteristics were assessed across three dimensions: (1) response length (word count), (2) readability (Flesch Reading Ease score), and (3) semantic similarity to human answers (TF-IDF cosine similarity). Statistical comparisons were performed using one-way ANOVA with pairwise t-tests.

Data Analysis: Human expert answers averaged 25.2 ± 16.1 words with a Flesch Reading Ease score of 41.8 (college-level readability). All LLMs produced substantially longer responses: DeepSeek-R1 was most concise (241.2 ± 54.4 words; $9.6\times$ human length), while GPT-OSS produced the longest responses (913.3 ± 179.1 words; $36.2\times$ human length). Response length differences among models were statistically significant ($F = 714.58$, $p < 0.001$). Readability varied significantly across models ($F = 171.29$, $p < 0.001$). GPT-OSS achieved the highest readability score (48.4 ± 8.3), while LLaMA 3.3 (29.7 ± 7.5) and DeepSeek-R1 (27.6 ± 6.8) produced more complex text requiring graduate-level comprehension. Qwen3 most closely matched human readability (38.5 ± 6.3 vs. 41.8). Semantic similarity to human answers was modest across all models (range: 0.204–0.253) with significant inter-model differences ($F = 4.11$, $p = 0.007$). Qwen3 demonstrated the highest semantic alignment with human responses (0.253 ± 0.124).

Results: Open-source LLMs demonstrate markedly different response profiles when addressing patient medical questions. All models produced responses substantially longer than human experts, potentially affecting patient engagement. The trade-off between response length, readability, and content alignment with expert answers varies by model architecture and size. Qwen3 (14B) achieved the best balance of semantic similarity and readability closest to human experts, while DeepSeek-R1 (14B) offered the most concise responses. These findings suggest that model selection for patient-facing applications should consider multiple response characteristics beyond accuracy alone.

Obesity Hypoventilation Syndrome as a Predictor for 30-day Hospital Readmissions Amongst Congestive Heart Failure Patients

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Introductions: Congestive heart failure (CHF) is the most common cause of hospitalization in patients aged 65 years or older. CHF is prevalent in approximately 6.7 million patients in America over the age of 20 years old and on the rise. Furthermore, readmission rates in CHF patients are the highest amongst all hospitalized patients, with the national rate being 25%. Due to the large CHF patient volume and the high readmission rate, the national projected cost of CHF is as high as \$227 billion. Because of the extraordinary cost burden of CHF, there is a need to identify the predictors of CHF readmissions. Comorbidities are identified as a predictor of CHF readmission, with chronic kidney disease, chronic obstructive pulmonary disease, diabetes mellitus, anemia, atrial fibrillation, and prior myocardial infarction being well studied. Obesity hypoventilation syndrome (OHS) has been studied as a comorbidity of heart failure, but it has not been studied as a predictor of CHF 30-day readmission. OHS refers to hypercapnia in obese individuals without other known causes of hypoventilation. OHS worsens CHF through multiple mechanisms including chronic hypercapnia, hypoxemia, pulmonary hypertension, and neurohormonal activation. This study aims to identify OHS as a predictor of 30-day hospital readmissions in CHF patients.

Methods: This retrospective cohort study was reviewed and approved by the local IRB. Medical records of patients that were admitted to the hospital with a diagnosis of CHF from 01/01/2024 to 01/01/2026 were pulled from Slicer Dicer in Epic with the following inclusion criteria: age of 18 years or older, admitted to inpatient unit during a hospital encounter, discharged from index admission alive, and a diagnosis of heart failure. Patients with OHS and obesity were also extracted. Of that, 122 patients had OHS. Patients with a BMI greater than 30 were propensity matched to the OHS group via BMI, age, and comorbidities. All 30-day readmissions were considered within the period of the study.

Data Analysis: A total of 244 patients were analyzed. The OHS patients had a 54.92% 30-day readmission rate, with 67 of the 122 being readmitted. The control group had a 25.41% 30-day readmission rate, with 31 of the 122 being readmitted. An odds ratio was calculated to be 3.58, and a Chi-squared analysis provided a p-value < 0.001.

Discussion: In this propensity matched cohort, patients with OHS had significantly higher 30-day hospital readmission rates than the matched patients without OHS. This suggests that OHS contributes to poorer outcomes following hospitalization for CHF. This could be due to persistent hypoventilation worsening CHF symptoms, increased sympathetic activation and an increase in cardiac output, pulmonary hypotension vasoconstriction and right ventricular dysfunction due to hypoxia, volume overload, and more. Clinical significance of this study is to identify early OHS in patients with CHF, have closer outpatient follow up for OHS patients discharged from the hospital, and emphasize the importance of good counseling for patients with OHS on using their positive airway pressure machines for treatment.

Poster #4c | Obesity Medicine | Research Projects/Case Series

Influence of Body Mass Index on Cytokine Secretion Profiles of Adipose-Derived Stem Cells from Trauma Patients

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Introductions: Adipose-derived stem cells (ADSCs) are increasingly employed in regenerative medicine for their immunomodulatory properties, mediated largely through cytokine and growth factor secretion. Burn injury is characterized by a hypermetabolic response that impacts tissue repair. The role of patient specific factors in recovery is not well-characterized. Obese patients have impaired metabolism activity that can impact wound healing. Obesity-associated chronic systemic inflammation may alter the biological behavior of ADSCs. Understanding how body mass index (BMI) influences ADSC secretome is important for optimizing their use in trauma and regenerative medicine. We hypothesize that trauma patients with higher BMI would have altered cytokine expression in ADSCs.

Methods: ADSCs were isolated from trauma patients and stratified into two groups based on BMI: BMI < 25 kg/m² and BMI > 25 kg/m². Cytokine concentrations (pg/mL) in ADSC-conditioned media were measured using MILLIPLEX multiplex assay. The panel includes inflammatory cytokines (IFN- γ , IL-1 β , IL-6, IL-8, TNF- α , IL-17A), anti-inflammatory cytokines (IL-10, IL-13, IL-4), chemokines (MCP-1) and growth factors (VEGF, FGF-2, TGF- α).

Data Analysis: Data were analyzed using Graphpad Prism (version11). Cytokine secretion profiles were compared across BMI categories using one-way ANOVA. Correlations between BMI and cytokine concentrations were assessed with statistical significance set at $p < 0.05$.

Results: IL-8 was substantially increased in ADSCs derived from patients with BMI > 25 (mean = 1705 vs 1157), whereas MCP-1 was increased in ADSCs derived from patients with BMI < 25 (mean = 1300 vs 481.6). The BMI > 25 group expressed higher levels of several cytokines and growth factors compared with ADSCs from patients with BMI < 25. Elevated expressions of IL-1 β (mean = 2.75 vs 1.56) and IL-17A (mean = 3.89 vs 2.44) may suggest enhanced inflammatory signaling in the higher-BMI group. Anti-inflammatory and immunomodulatory cytokines, including IL-4 (mean = 34.87 vs 4.26), IL-10 (mean = 3.73 vs 0.71), and IL-13 (mean = 3.82 vs 2.01), were also increased among patients with BMI >25. VEGF level was higher in the high-BMI cohort. IFN- γ and TGF- α remained low in both groups with minimal differences observed ($p = 0.988171$, $p = 0.06$).

Poster #4d | Obesity Medicine | Research Projects/Case Series

Mobile Health Interventions for Dietary Compliance in Adults: A Systematic Review

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Introductions: Background

Mobile health (mHealth) interventions, including telehealth services, app-based platforms, and digital monitoring tools, are increasingly used to support dietary behavior change. However, their effectiveness for improving dietary compliance to prespecified dietary goals remains unclear. The primary aim of this systematic review was to evaluate dietary compliance outcomes in adults receiving mHealth dietary interventions.

Methods: Methods

A comprehensive literature search was conducted with librarian support using Covidence across MEDLINE, EMBASE, CINAHL, Scopus, CENTRAL, grey-literature sources, and ClinicalTrials.gov. Search terms combined concepts related to mHealth, dietary compliance, and study design. Risk of bias was assessed using RoB 2 for randomized trials and ROBINS-I for non-randomized studies, and certainty of evidence was evaluated using GRADE. The review was prospectively registered in PROSPERO (CRD42024532085).

Data Analysis: Results

The search identified 7,164 records, of which 39 studies met inclusion criteria. Interventions most commonly included self-monitoring or dietary tracking, feedback, goal setting, education, and personalized behavioral support delivered through mobile applications or web-based platforms. Dietary compliance was assessed using heterogeneous dietary assessment methods, most often FFQs, dietary screeners, or diet-quality/compliance indices rather than repeated 24-hour recalls or multi-day dietary records. Across randomized trials, mHealth interventions frequently improved dietary outcomes, but they were often comparable rather than superior to active or lower-technology control conditions. Overall certainty of evidence was low because of risk of bias, reliance on self-reported outcomes, and heterogeneity in both intervention components and dietary outcome measurement.

Results: Conclusion

mHealth interventions appear to be a feasible and promising approach for supporting dietary compliance in adults, but the current evidence does not show consistent superiority over standard care or lower-technology comparison conditions. Future research would be strengthened by more standardized dietary assessment methods and more rigorous evaluation of which intervention components are associated with meaningful dietary change.

Poster #5a | Obesity Medicine | Research Projects/Case Series

Depot-Specific Remodeling of the m6A Epitranscriptomic Machinery in Adipose Tissue During Obesity and Type 2 Diabetes

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Introductions: RNA N6-methyladenosine (m6A) is a reversible post-transcriptional modification that influences mRNA stability, processing, and translation, regulated by writers (methyltransferases), erasers (demethylases), and readers (m6A-binding proteins). METTL3 is a canonical writer; FTO and ALKBH5 function as erasers. Although individually linked to metabolic traits, their coordinated behavior across adipose depots and disease stages remains poorly understood. This study characterizes core m6A regulator expression during adipocyte differentiation and in mouse models of obesity and type 2 diabetes, with transcript and protein-level validation.

Methods: 3T3-L1 preadipocytes were differentiated into mature adipocytes using standard hormonal induction, with RNA collected at defined time points. Epididymal (EWAT) and inguinal (IWAT) adipose tissues were harvested from C57BL/6 mice fed low-fat or high-fat diets at 12 and 18 weeks, and from leptin receptor-deficient (db/db) and heterozygous control (db/+) mice. Gene expression was quantified by qPCR and protein expression by Western blotting. A complementary bioinformatic analysis evaluated tissue-level baseline m6A modification across 32 TCA cycle genes.

Data Analysis: A panel of epitranscriptomic regulators (Mettl3, Fto, Alkbh5, Wtap, Elavl1, Zc3h13, Ythdc1, Cbl1) was profiled by qPCR using the $\Delta\Delta C_t$ method with Gapdh as reference. Protein levels of METTL3, FTO, and ALKBH5 were assessed by densitometry with β -actin as loading control. Tissue-specific m6A patterns across TCA cycle genes were analyzed in R using the m6AConquer database.

Results: During adipocyte differentiation, Mettl3 and Fto increased progressively while Alkbh5 showed moderate upregulation, indicating dynamic remodeling of the m6A machinery. In vivo, all three regulators were reduced in db/db mice, most prominently in EWAT. High-fat diet preferentially suppressed expression in IWAT at 18 weeks, with smaller changes in EWAT. Western blot confirmed reduced METTL3 and FTO protein under high-fat and diabetic conditions; ALKBH5 showed a milder decrease. Differences were most pronounced at 18 weeks, suggesting progressive dysregulation. Bioinformatic analysis revealed m6A enrichment on most, though not all TCA cycle transcripts across key metabolic tissues.

Poster #5b | Obesity Medicine | Research Projects/Case Series

Metabolic and Systemic Inflammatory Effects of GLP-1 Receptor Agonists in IBD Patients with Type 2 Diabetes or Obesity: A Retrospective Cohort Study

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Introductions: Glucagon-like peptide-1 receptor agonists (GLP-1 RA) have emerging functions beyond metabolic regulation including reducing systemic inflammation. In inflammatory bowel disease (IBD), metabolic comorbidities have been shown to further exacerbate disease activity. We evaluated the impact of GLP-1 RA treatment on metabolic and systemic inflammation in IBD patients with type 2 diabetes mellitus (type 2 DM) and obesity.

Methods: We conducted a single-site retrospective cohort analysis of 20 patients with IBD and diabetes and/or obesity treated with GLP-1 RAs and concurrent IBD therapy between January 2020 to June 2025. Patients were categorized by GLP-1 RAs (Semaglutide, Tirzepatide, Liraglutide, and Dulaglutide) use versus non-GLP-1 RA antihyperglycemic therapy or insulin. Primary outcomes were changes in hemoglobin A1c (HbA1c), serum glucose, and indicators of systemic inflammation in IBD. Secondary analyses stratified outcomes by type 2 diabetes (T2DM) and BMI class.

Data Analysis: Outcomes were analyzed using pre- and post-treatment comparisons. Composite inflammatory response rates were calculated and summarized with 95% confidence intervals.

Results: GLP-1 RA treatment was associated with improvements in markers of metabolic and systemic inflammation. Reductions were observed in mean HbA1c (-0.11%; T2DM and Ulcerative Colitis) and decreases in mean blood glucose in available observations (-26 mg/dL; T2DM and Crohn's Disease). Minimal improvements in HbA1c and glucose were observed in type 1 diabetes (T1DM). Composite inflammatory response, defined as stable disease activity or improvement in CRP, ESR, or fecal calprotectin and/or radiologic indicators, was observed in 70% of patients (14/20 responders; 95% CI, 46%-88%) compared with 33% in non-GLP-1 RA-treated patients (4/12; 95% CI: 6% - 60%). This corresponded to an odds ratio of 4.67 (95% CI, 1.01-21.6, $p \approx 0.05$). Mean CRP decreased by 52% (18.4 mg/L to 9.6 mg/L, $p=0.02$) in BMI classes I and II. ESR decreased from 32 mm/h to 21 mm/h ($p=0.03$), and fecal calprotectin decreased from 462 $\mu\text{g/g}$ to 295 $\mu\text{g/g}$ ($p=0.03$). Improvements in radiologic indicators were observed in 75% of patients with both T2DM and BMI $\geq$ 30 compared to 57% with T2DM and 40% with BMI $\geq$ 30 alone.

Understanding Louisiana Parents' Views on Childhood Obesity: Regional Perceptions May Shape Prevention

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Introductions: Childhood obesity is a major public health concern in Louisiana, which ranks fourth nationally in prevalence. This study examined Louisiana parents' perceptions of childhood obesity and regional differences across the state.

Methods: A web-based survey of 1,013 Louisiana parents was conducted in Spring 2025 using Qualtrics. Equal numbers of parents were sampled across Louisiana's nine regions (n=110-115 per region). Respondents were predominantly female (68.4%) and White (65.7%) or Black/African American (24.4%). Parents were asked about their perception of childhood obesity in Louisiana compared with other states, concern about childhood obesity, and which entity they believed most responsible for addressing it. Frequencies overall and by region were calculated, and regional differences were tested using generalized linear models and chi-square tests.

Data Analysis: Overall, 47.3% of parents thought childhood obesity in Louisiana was the same as other states, while 26.7% perceived it as worse and 26.1% as better. Compared with the rest of Louisiana, a higher percentage of parents in Region 2 (Greater Baton Rouge) perceived childhood obesity as better ($p<0.0001$) and a lower percentage perceived it as the same ($p=0.0141$) or worse ($p=0.0046$). A greater prevalence of parents in Regions 3 (River Parishes) and 8 (Northeast) perceived childhood obesity as the same as other states ($p=0.0012$ and $p=0.0004$, respectively). A lower percentage of Region 3 parents perceived childhood obesity as better ($p<0.0001$), while a lower percentage of Region 8 parents perceived it as worse ($p=0.0292$). Most parents (82.2%) reported being somewhat or very concerned about childhood obesity. Parents in Region 3 had greater odds of being at least somewhat concerned than parents in other regions (OR=2.2, 95% CI:1.4-3.4). Overall, 62.7% of respondents identified parents as most responsible for addressing childhood obesity, followed by health care systems (13.6%), government (11.1%), schools (6.4%), and industry (5.9%). A lower percentage of respondents in Regions 5 (Southwest; $p<0.0001$) and 7 (Northwest; $p=0.0081$), and a greater percentage in Region 3 ($p=0.0019$), identified parents as most responsible for addressing childhood obesity. No significant differences were found for other regions.

Results: Louisiana parents generally perceived childhood obesity as comparable to other states despite the prevalence being among the highest in the nation. Most respondents were concerned about childhood obesity, and the majority believed parents were responsible for driving change. Importantly, parental perceptions differed by region. Together, these findings suggest that regional differences in childhood obesity perceptions may influence engagement in childhood obesity prevention efforts and highlight the need for tailored awareness campaigns.

Poster #5d | Trauma surgery and Obesity | Research Projects/Case Series

Comparative Outcomes of REBOA Devices in Overweight and Obese Blunt Trauma Patients: AAST AORTA Registry Analysis

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Introductions: This study compares resuscitative endpoints in overweight and obese blunt trauma patients undergoing resuscitative endovascular balloon occlusion of the aorta (REBOA) to determine whether a partial occlusion capable device (p-REBOA PRO) differs from the standard ER-REBOA catheter.

Methods: A retrospective analysis of adult (≥ 18 years) blunt trauma patients with BMI ≥ 25 kg/m² from the American Association for the Surgery of Trauma (AAST) Aortic Occlusion for Resuscitation in Trauma and Acute Care Surgery (AORTA) database were evaluated over a 10-year period. Patients were stratified by device type (Prytime ER-REBOA vs p-REBOA PRO). Univariable analyses were performed with acute kidney injury (AKI) as primary outcome; secondary outcomes included hemodynamic improvement, hemodynamic stability (SBP >90 mmHg for ≥ 5 minutes) and in-hospital mortality.

Data Analysis: Of 502 registry patients, 329 met inclusion criteria; 265 (80.6%) underwent AO with Prytime ER-REBOA and 64 (19.4%) with p-REBOA PRO. Patients who developed AKI had greater injury severity (median ISS 8.2 vs 5.8; $p=0.000$) and higher initial lactate levels (7.85 vs 5.55 mmol/L; $p=0.002$). Use of the p-REBOA PRO device was associated with a lower incidence of AKI compared with Prytime ER-REBOA (18.8% vs 31.3%; OR 0.51, 95% CI 0.26-1.00; $p=0.047$), higher rates of hemodynamic improvement (90.2% vs 78.6%; OR 2.49, 95% CI 1.02-6.09; $p=0.039$), and achievement of hemodynamic stability (80.0% vs 64.9%; OR 2.17, 95% CI 1.10-4.29; $p=0.024$). No significant differences were observed for in-hospital mortality ($p=0.620$).

Results: The p-REBOA PRO may offer early resuscitative advantages in overweight and obese trauma patients without a difference in mortality. These findings support prospective evaluation of p-REBOA devices to determine whether the observed advantages translate into meaningful clinical benefit in overweight and obese trauma patients.