Population-wide Analysis of the Effect of Bariatric Surgery on Idiopathic Intracranial Hypertension in Obese Patients
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INTRODUCTION: Idiopathic intracranial hypertension (IIH) is a common debilitating condition in obese patients resulting in frequent ED visits and spinal tap procedures (STP). Lowering body weight has been shown to improve symptoms but nonsurgical weight loss is uncommon in this population. Several single-institution case series have shown that metabolic and bariatric surgery (MBS) may effectively reduce IIH severity in obese patients; however, no data on long-term outcomes are available. We compared outcomes, cost, and care utilization among IIH patients 3 years before and after MBS and those who did not receive MBS.

METHODS: Using all-payer inpatient and ambulatory surgery data (2005-2018) from New York Statewide Planning and Research Cooperative System, we identified obese patients with IIH using diagnostic codes. We conducted bivariate and multivariate analyses using propensity score matching to compare 3-year outcomes in patients with and without MBS. We also assessed hospital costs before and after the MBS.

RESULTS: Among 2,740 obese IIH patients, 148 (5.4%) patients underwent MBS. The average STP use after MBS was significantly lower compared to the preoperative use (0.06 procedures per year vs 0.40, p<0.01) or to patients with IIH who did not have surgery (0.17, range 0-14). The median hospital costs among IIH patients were significantly reduced after the MBS (-$6,193, p<0.01).

CONCLUSION: MBS is effective in reducing frequency of IIH and related hospital admissions in obese populations. Further research is needed to understand the relationship between IIH with weight loss and regain and impact of IIH on patient motivation for MBS.

Reducing Operating Room Inefficiencies via a Novel Surgical App Shortens the Duration of Laparoscopic Roux-en-Y Gastric Bypass
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INTRODUCTION: We have previously shown that workflow inefficiencies in the operating room (OR) prolong the duration of bariatric procedures and therefore, increase cost and resource use. We hypothesized that implementation of a novel OR workflow management application would shorten the duration of laparoscopic Roux-en-Y gastric bypass (LRYGB) by reducing workflow inefficiencies.

METHODS: After IRB approval, we prospectively implemented the ExplORer Surgical app during all LRYGB procedures between July 2018 and July 2019. During the first half of the study period, the app was used to obtain LRYGB baseline data; during the second, it was implemented in the OR workflow to assist scrub nurses and circulators by providing insight into the items needed for each step of the procedure. Throughout the study period, 3 trained observers also used the app to capture real-time incidents causing delays such as malfunctioning/missing/misplaced equipment, anesthesia-related delays, disrupting conversations, loss of sterility, and “other.” The impact of each incident on case duration was assessed using multivariable analysis adjusting for confounders between the baseline/implementation cases.

RESULTS: 78 (40 pre and 38 post-implementation) procedures were observed. After implementation of ExplORer, the average number of delay-causing incidents per operation decreased (3.9 vs 2.1; p<0.001, Table), and the LRYGB duration was reduced compared to baseline (162.2 min vs 153 min, p=0.019), even after adjusting for all confounders. Further, incidents were no longer associated with procedural delays (p=0.623).

CONCLUSION: Implementation of ExplORer Surgical app in the OR decreased the number of incidents causing delays, and effectively reduced the duration of LRYGB operations.

<table>
<thead>
<tr>
<th>Incident Type</th>
<th>Baseline</th>
<th>After Explorer Implementation</th>
<th>p-value</th>
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<tr>
<td>All Incidents</td>
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<td>2.1</td>
<td>&lt;0.001</td>
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<td>Inappropriate Equipment</td>
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<td>Sterile Field Compromised</td>
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Subtotal Gastrectomy vs Gastroenterostomy in Duodenal Obstruction Secondary to Peptic Ulcer Disease: Results of a Retrospective Nationwide Study
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INTRODUCTION: Understanding peptic ulcer disease (PUD) pathophysiology has dramatically decreased the need for surgery and complications in the last decades. However, when surgery is required, there is still no clarity regarding the optimal surgical approach. Subtotal gastrectomy (SG) and gastroenterostomy are
(GE) frequently used to treat this condition. We aim to compare the postoperative outcomes of patients having either SG or GE due to duodenal obstruction secondary to PUD.

**METHODS:** The National Inpatient Sample (NIS) was used to identify patients who underwent SG or GE due to duodenal obstruction secondary to PUD from 2010 to 2015. Patients with a diagnosis of gastric ulcers or malignant disease were excluded. Bivariate and multivariate regression analyses comparing postoperative complications in SG and GE were performed.

**RESULTS:** There were 1,318 patients included in the analysis (990 in the SG group and 328 in the GE group). Patients in the GE group were significantly older, mostly males, and had a significantly higher prevalence of malnutrition. No significant differences regarding comorbidities were observed between the groups. Mortality risk was not statistically different, while the adjusted risk of several postoperative complications was significantly higher in the SG group.

**CONCLUSION:** Duodenal obstruction secondary to PUD still represents a relevant entity in daily surgical practice. SG was associated with a significantly higher incidence of postoperative complications compared with GE in this context. Large randomized controlled trials are needed to confirm this trend and assess long-term outcomes to establish the definitive gold-standard therapy for these patients.

The Use and Safety of POEM and Other Definitive Management Strategies for Achalasia

**INTRODUCTION:** Per oral endoscopic myotomy (POEM) has shown similar efficacy to pneumatic dilation (PD) and laparoscopic Heller myotomy (LHM) for relief of achalasia symptoms. We sought to describe the diffusion of this new technology into clinical practice and address unanswered questions regarding safety and the burden of healthcare use after POEM.

**METHODS:** A retrospective cohort study of patients (age 18-63 years) with achalasia was initially treated with POEM, PD, or LHM (2010-2017) using the MarketScan claims databases. The administrative code used to measure POEM was validated in an institutional cohort using gold standard chart abstraction. We compared rates of perforation requiring intervention and healthcare use in the year after the index procedure.

**RESULTS:** Among 1,921 patients (mean age 46.2 years, 48.7% women), 75.7%, 16.9%, and 7.4% underwent LHM, PD, and POEM, respectively. POEM increased from 1.1% of cases in 2010 to 18.9% in 2017 (Figure). Perforation occurred in 0.3% (95% confidence interval [CI]: 0.1-0.7) LHM vs 0.9% (95%CI: 0.2-2.7) PD vs 0.0% (95%CI: 0.0-2.6) POEM. After POEM, 88.0% (95%CI: 82.6-93.4) underwent achalasia-related diagnostic testing compared to 74.3% (95%CI: 72.1-76.5) and 78.5% (95% CI: 74.0-83.0) after LHM and PD, respectively. Reintervention was performed in 17.6% (95%CI: 11.3-23.9) after POEM compared to 7.8% (95%CI: 6.4-9.2) and 45.5% (95%CI: 40.0-51.1) after LHM and PD, respectively.

**CONCLUSION:** The use of POEM has increased, comprising nearly one-fifth of definitive procedures performed for achalasia in 2017. Perforation requiring intervention was rare for all procedures. POEM was associated with greater post-procedure diagnostic testing and reintervention compared to LHM.

The Weight and Lifestyle Inventory (WALI) Helps Identify Patients at Risk for Weight Regain after Bariatric Surgery.

**INTRODUCTION:** Significant weight regain (WR) after bariatric surgery affects 1 in 5 patients and increases the risk for comorbidity recurrence. The Weight and Lifestyle Inventory (WALI) questionnaire is a well-established tool to quantify eating behaviors, and could be used to identify patients at risk for WR. The purpose of this study was to evaluate whether WALI can predict WR in patients after bariatric surgery.

**METHODS:** Patients who underwent primary bariatric surgery at our institution between 2014 and 2016, and who were >2 years post-surgery, were interviewed via telephone. Current weight, nadir weight, and time since surgery were obtained, and WALI questions pertaining to eating habits and hunger (Section H) were completed. Responses were recorded on a 5-point Likert scale, and a total score between 0 and 120 was calculated. Patient characteristics (age, height, gender, type of surgery, pre-operative WALI, and pre-operative BMI) were obtained through chart...