Outcomes and Patterns Associated with Hiatal Hernia Repair in MBS Conversion/Revision Cases

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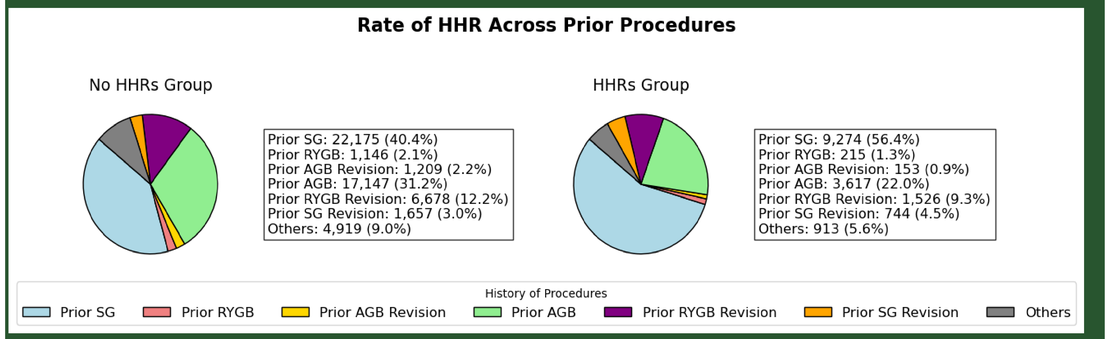
Introduction

- Hiatal hernia repairs (HHRs) are increasingly performed during conversion-revision (C/R) metabolic and bariatric surgery (MBS).
- Limited research exists on its impact on postoperative outcomes.
- **Objective:** Investigate factors associated with HHRs in C/R-MBS and identify predictors for HHR development.

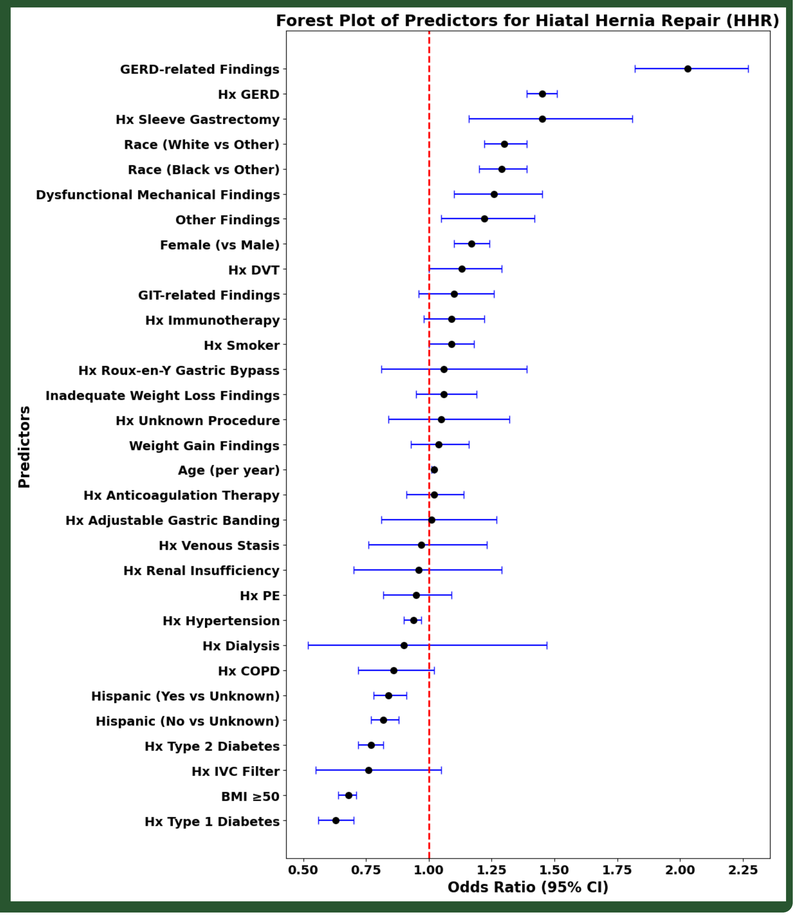
Methods

- **Dataset:** MBSAQIP (2020-2022)
- **Primary Outcome:**
  - Trends and patterns of HHRs.
- **Secondary Outcomes:**
  - Rate of postoperative complications.
- **Analysis:**
  - Stratified by **sex** and **BMI (<50 vs. ≥50)**
  - Considered **procedural history, C/R findings, demographics**
  - **Multivariate logistic regression** to identify predictors of HHRs (**$p < 0.05$** for significance)

Figures 1



Figures 1; the demographic distribution of the patients who utilized the MBSAQIP calculator vs those who did not. The percentages remained relatively equal with no statistically significant differences in race groups.



The forest plot illustrates the **multivariable-adjusted odds ratios (ORs) and 95% confidence intervals (CIs) for predictors of hiatal hernia repair (HHR) in patients undergoing conversion or revision metabolic and bariatric surgery (MBS)**. A vertical dashed line at **OR = 1** represents the null hypothesis, where values crossing this line indicate no significant association. Predictors with OR **>1 suggest an increased likelihood of HHR**, while those with OR **<1 indicate a reduced likelihood**. Statistically significant predictors ($p < 0.05$) include **female sex, increasing age, prior sleeve gastrectomy, GERD history, and GERD-related conversion findings**, highlighting their strong association with HHR risk.

Results

- **Total Patients:**
  - 71,737; **HHR Group:** 16,442 (23%).
- **HHR Group:**
  - Older (49.3 vs. 48.1 yrs) and lower BMI (40.5 vs. 43.3 kg/m²) (**$p < 0.001$**).
  - **HHR rates increased** from **22% (2020) to 35% (2022) ($p < 0.001$)**.
- **Common C/R Procedures:**
  - **C-RYGB (62%), C-SG (14.3%)**.
- **Strongest Predictors:**
  - GERD ($p < 0.001$) & **prior SG (OR = 1.45, $p < 0.0001$)**.
- **Postoperative Outcomes:**
  - **Bowel obstruction higher** in **HHR group** (1.3% vs. 0.8%, **$p < 0.001$**).
- **Minimal BMI impact** but **slight increase in anastomotic leaks** in **BMI ≥50** (1.1% vs. 0.7%, **$p = 0.046$**).

Conclusion:

- **HHRs increasing** in C/R-MBS but **no major impact on outcomes**.
- **GERD & prior SG increase likelihood of HHRs**.
- **Future Research:** Long-term outcomes & recurrence rates.