Predictors of anemia recovery in patients with pre-existing anemia undergoing bariatric surgery

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Background

- Chronic systemic inflammation associated with obesity may cause anemia
- Bariatric surgery is very effective but almost **2/3rd** of patients develop anemia
- Weight loss associated with recovery from anemia
- Few studies have investigated postoperative recovery from anemia following bariatric surgery

Objectives

- To determine how frequently patients recover from anemia following bariatric surgery and what factors are involved in recovery from anemia

Methods

- Retrospective study of patients with preoperative anemia that underwent a primary bariatric procedure from 2010-2020
- Data from Ontario Bariatric Registry
- Primary outcome was recovery from anemia at 6 months post-surgery as defined by WHO thresholds
- Binary logistic regression model was created

ONTARIO Bariatric Network

Over 50% of anemic patients recover from anemia after undergoing bariatric surgery



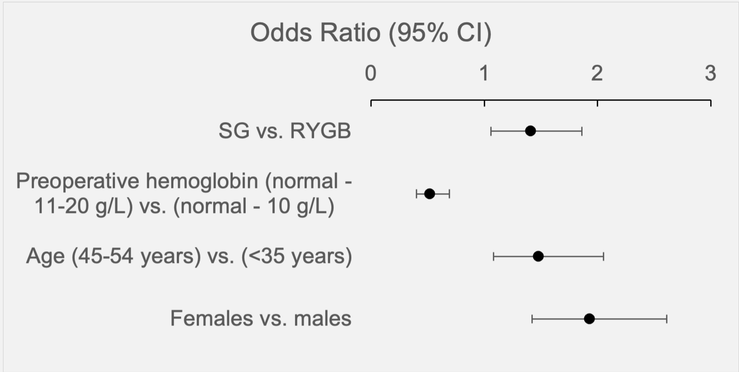
Older age, female sex, and sleeve gastrectomy associated with higher odds of recovery; lower preoperative hemoglobin associated with lower odds



Weight loss did not have a significant impact on recovery from anemia

Results

- 57% of patients recovered from anemia
- Receiving SG (OR 1.41, 95% CI 1.06-1.86, p=0.017) as compared to RYGB associated with significantly higher odds of recovery from anemia
- Preoperative hemoglobin levels 11-20 g/L below normal associated with less odds of recovery (OR 0.52, 95% CI 0.40-0.69, p<0.001) as compared to levels 0-10 g/L below normal
- Age between 45-54 years (OR 1.48, 95% CI 1.08-2.05), p=0.16) associated with greater odds of recovery than age <35 years
- Female sex (OR 1.93, 95% CI 1.42-2.61, p<0.001) associated with greater odds of recovery than male sex



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