EVALUATING NATIONAL TRENDS IN BLEEDING ASSOCIATED WITH METABOLIC BARIATRIC SURGERY OVER SEVEN YEARS

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Introduction

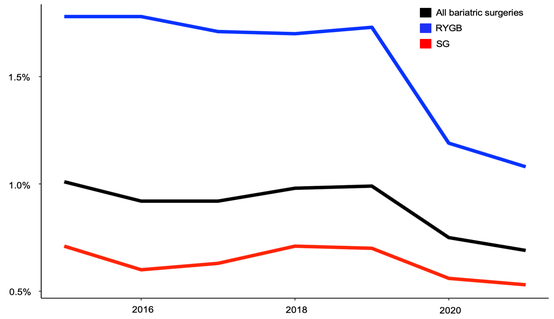
- Post-operative bleeding is a known complication after metabolic bariatric surgery (MBS).
- Using the MBSAQIP database, we evaluated:
  1. National trends in the rates of bleeding
  2. Factors associated with bleeding
  3. Impact of a bleeding complication on other outcomes post-operatively

Methods

- MBSAQIP database from 2015-2021 was queried.
- Bleeding was defined as transfusion of ≥1 unit of blood post-operatively, or readmission, reoperation or intervention for bleeding.
- Multivariable regression analysis performed for preoperative demographics and comorbidities associated with post-operative bleeding for all MBS.
  - Subgroup analysis performed for sleeve gastrectomy (SG) and gastric bypass (RYGB).
- Peri-operative outcomes compared between those who had a bleeding complication versus those who did not after 1:1 propensity matching using pre-operative factors.
- Peri-operative outcomes were compared in these matched cohorts (n=8478).

Results

National Trends in Bleeding Rates from 2015-2021

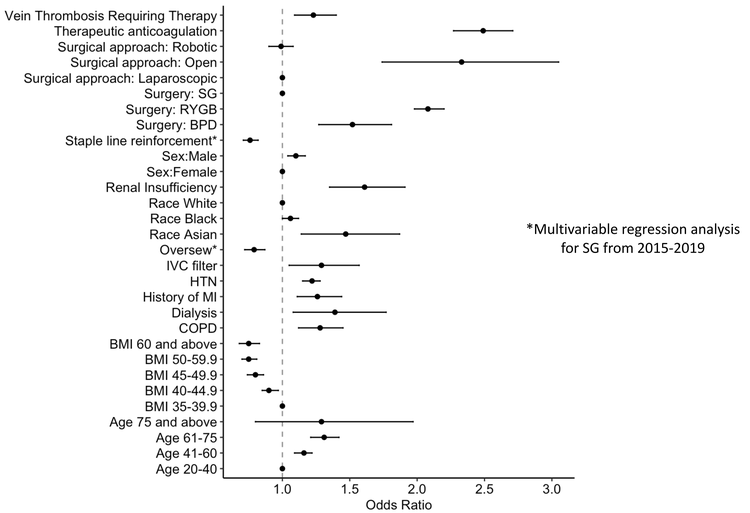


Significantly different post-operative outcomes within 30 days in matched cohorts of patients with and without bleeding complications

Characteristics (N=8478 in each group)	No bleeding	Bleeding
Acute renal failure	12 (0.10%)	136 (1.60%)
Cardiac arrest	8 (0.09%)	100 (1.18%)
Organ space infection	30 (0.35%)	241 (2.84%)
Pulmonary embolism	16 (0.19%)	96 (1.13%)
Unplanned ICU admission	67 (0.79%)	1,885 (22.23%)
Wound disruption	9 (0.11%)	46 (0.54%)
Reoperation	119 (1.41%)	2,618 (30.88%)
Intervention	131 (1.55%)	1,296 (15.29%)
Readmission	380 (4.50%)	2,305 (27.19%)
Major complications	197 (2.33%)	3,609 (42.57%)
Death	11 (0.13%)	90 (1.06%)

Results

Pre-operative demographics and comorbidities associated with Bleeding rates



Conclusion

- The risk of bleeding after MBS has decreased in the past 7 years, with an overall rate of < 1%.
- Patients suffering a bleeding complication have a markedly higher risk of major complication and death.
- Therefore, identifying at-risk patients as well as methods to reduce post-operative bleeding should be a priority.