Does Cannabis Use affect Metabolic and Bariatric Surgical Outcomes?

Alisa Khomutova, Yunhan Liao, Jie Yang, Genna Hymowitz, Edmund Lee, Artem Shmelev, Konstantinos Spaniolas

Stony Brook Medicine
Department of Surgery

Renaissance School of Medicine
Stony Brook University

BACKGROUND

- Despite its legality, cannabis use in metabolic and bariatric patients remains controversial.
- Previous literature has suggested that cannabis use may improve surgical outcomes with regards to post-operative nausea, vomiting and pain control, while other studies have found an increased risk of perioperative complications and mortality after elective non-cardiac surgery.

OBJECTIVES

Investigate whether cannabis use leads to a difference in short and long-term outcomes following metabolic and bariatric surgery.

METHODS

- The New York Statewide Planning and Research Cooperative System (SPARCS) database used to identify patients aged >19 years old who underwent Roux-en-Y gastric bypass (RYGB), sleeve gastrectomy (SG) and gastric banding (GB) between 2017-2022. Cannabis use was assessed using diagnosis records within 2 years prior to surgery.

- For each patient, demographic factors, LOS, readmission and in hospital complications (as defined by ACS NSQIP criteria) were collected.

- Multivariable regression models were used to examine differences in each outcome based on cannabis use.

RESULTS

Figure 1: Cumulative incidence of revision/conversion after metabolic and bariatric procedure and corresponding 95% CI by cannabis use (yes= use, no= no use) among metabolic and bariatric surgery patients

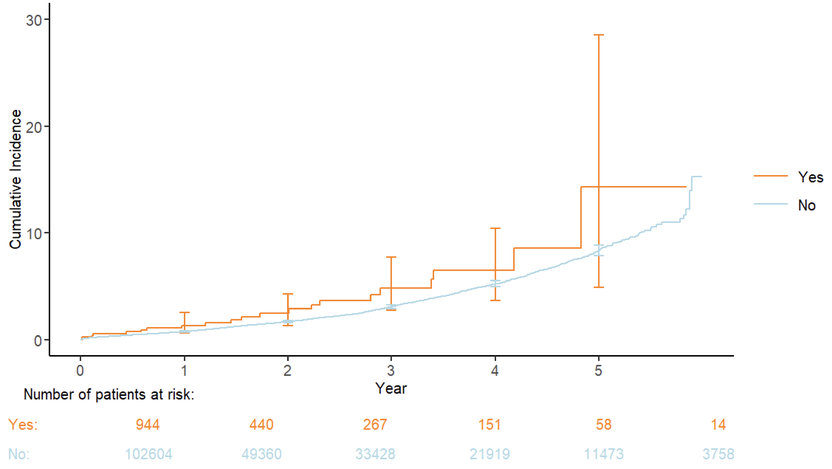


Table 1.5: Estimated cumulative incidence of revision/conversion after MBS and corresponding 95% CI by cannabis use (2 levels) at year 1, 3 and 5 among bariatric surgery patients.

	Estimated cumulative incidence of revision conversion (95% CI)		
Cannabis use (2 levels)	Year 1	Year 3	Year 5
Yes	1.35% (0.63% - 2.57%)	4.82% (2.74% - 7.76%)	14.31% (4.89% - 28.57%)
No	0.76% (0.69% - 0.83%)	3.07% (2.89% - 3.25%)	8.35% (7.86% - 8.85%)

DISCUSSION

- A total of 103,548 MBS patients were included in the study. Of these, 944 were cannabis users and 102,604 were non-users.

- LOS and 30-day readmission after metabolic and bariatric procedure were significantly different between cannabis use and non-cannabis use patients: cannabis use patients had longer LOS (OR = 1.06, 95% CI: 1.00 - 1.11, P-value = 0.0356) and a higher risk of having 30-day readmission (OR = 1.44, 95% CI: 1.06 - 1.97, P-value = 0.0211) compared to non-cannabis use patients.

- There was no significant difference in the risk of in-hospital complication (p-value = 0.5855), or in the risk of revision/conversion after the metabolic and bariatric procedure between users and non-users (P-value = 0.0505).

CONCLUSION

- Although individuals who use cannabis may have a higher risk of 30-day readmissions and a longer initial hospital LOS, cannabis use is not associated with worse outcomes with respect to in-hospital complications and need for subsequent revision/conversion.
- The use of cannabis is likely under-reported in medical charting.

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