The Effects of Marijuana on Post-Bariatric Surgery Patients

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INTRODUCTION

- Nicotine has detrimental effects on surgical outcomes and healing
- Marijuana is a known appetite stimulant, and can be ingested either orally or smoked
- Minimal data exist for effects of marijuana on post-bariatric surgery patients

Objective: Compare weight loss trajectory and complications of post-operative bariatric patients who used marijuana *vs* those who did not

METHODS

Prospective, observational, single-institution analysis of patients who underwent bariatric surgery (Roux-En-Y Gastric Bypass, Sleeve Gastrectomy, and Gastric Band)

- Timeframe: May 2022 – August 2023
- Marijuana use within 1 year of surgery surveyed
- Weight outcomes tracked at one, three, and six-months post-operative intervals
- Complications
- Statistics: descriptive, univariate, and multivariable linear regression analyses

LIMITATIONS

Small sample size, single institution, subjective reporting, no subgroup analysis among types of marijuana (smoked *vs* edibles)

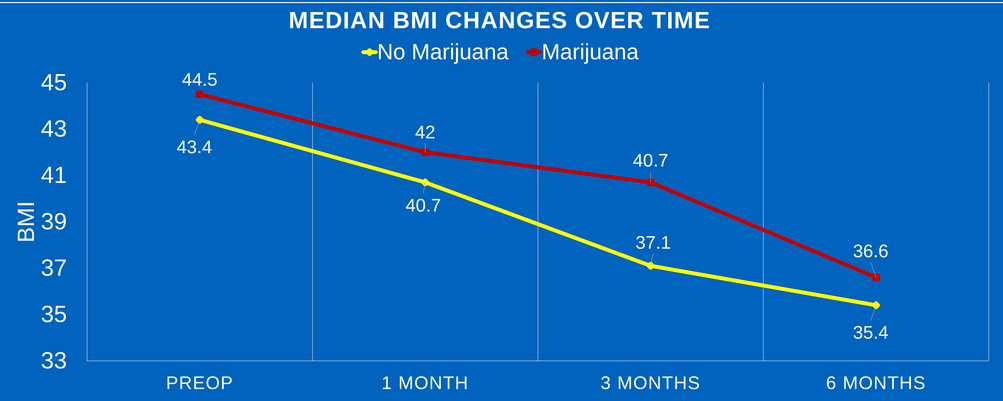


Table: Multivariable linear regression for percent difference (95% confidence interval) in BMI

	Preoperative	Change at 1 month	Change at 3 months	Change at 6 months
Age	-0.08 (-0.2, 0.03)	-0.02 (-0.04, 0.003)	-0.03 (-0.1, 0.05)	-0.07 (-0.1, 0.01)
Female	1.5 (-1.6, 4.5)	-0.7 (-0.2, 0.3)	**-2.4 (-4.4, -0.4)**	0.2 (-1.8, 2.2)
Sleeve gastrectomy	-2 (-5.4, 1.4)	**-1.3 (-1.3, -0.02)**	0.3 (-2.1, 2.7)	-0.9 (-3.1, 1.2)
Marijuana use	0.04 (-2.8, 2.9)	-0.4 (-0.9, 0.1)	2 (-0.1, 4.1)	-0.5 (-2.4, 1.5)

RESULTS

Baseline characteristics

- 145 patients underwent bariatric surgery
  - 16 (11%) had RYGB, 127 (88%) sleeve gastrectomy, and 2 (1%) had gastric band
- Marijuana use: n = 29 (20%)

BMI analyses

- Median pre-operative BMI similar between marijuana and non-marijuana users (44.5 *vs* 43.4, $p = 0.735$)
- No difference in median BMI decrease between marijuana and non-marijuana users at 1 month (2.7 *vs* 2.8, $p = 0.281$), 3 months (6.6 *vs* 5.6, $p = 0.204$), and 6 months (8.3 *vs* 8.8, $p = 0.845$) (Figure)
- Minimal differences in percent BMI change when adjusted for age, sex, marijuana use, or surgery type, at 1, 3, and 6 months (Table)

Complications

- No difference in complications between marijuana and non-marijuana users at 6 months (20% *vs* 9.5%, $p = 0.93$)

CONCLUSION

No differences in weight loss or complications among marijuana *vs* non-marijuana users