Predictors of in-patient opioid consumption after laparoscopic bariatric surgery

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Key message: The use of TAPB and setting pain expectations through patient education preoperatively may potentially reduce requests for opioids after laparoscopic bariatric surgery. Younger patients and those undergoing concomitant procedures are potential targets for pain management optimization.

Introduction

- The overprescription of opioids to surgical patients is a recognized contributor to the opioid epidemic.
- Despite laparoscopy and multimodal analgesia, patients undergoing bariatric surgery remain at increased risk of persistent opioid use.
- Studies support that 4-14% of patients continue to use opioids beyond 3 months after surgery.
- Increased opioid consumption during in-patient stay is a risk factor for persistent use post-discharge.
- Addressing factors associated with in-patient opioid consumption may improve quality of care after bariatric surgery.

Objectives

- *Primary:* To identify patient and procedural factors associated with in-patient opioid consumption after laparoscopic bariatric surgery.
- *Secondary:* To assess whether in-patient opioid consumption is a predictor of length of stay (LOS) and 7-day post-discharge consumption.

Methods

- Prospective cohort study (September 2021 to April 2022) in 2 university hospitals and 1 private clinic in Montreal, Canada.
- ERP used with opioid-sparing analgesia.
- Primary outcome: morphine milligram equivalents (MME) consumed during acute in-patient recovery (POD 0-1).
- Multivariate linear regression used (1) to identify pre- and intra-operative predictors of in-patient opioid consumption, and (2) to evaluate the adjusted association of in-patient opioid consumption with LOS and 7-day post-discharge e consumption.

Results

- 351 patients included (mean age 44, BMI 45.2, 77% female, 71% LSG, median LOS 2 days).
- Median opioid consumption at POD 0-1: 92.5 MMEs (IQR 55–142.5).
- See table for primary analysis results.
- In-patient opioid consumption was an independent predictor of increased LOS (+0.003 [95%CI +0.002 to +0.004]) and 7-day post-discharge opioid consumption (+0.11 [95%CI +0.06 to +0.15]).

Association between total MME consumed during POD 0-1 and predictors

Variable	Coefficient	95% Conf. Interval	P>t
Age	-1.37	-1.93 to -0.81	<0.01
TAPB	-46.08	-58.26 to -33.90	<0.01
Preop pain expectation	-2.90	-0.43 to -5.37	0.02
Concomitant procedure	15.58	0.92 to 30.23	0.04

