Feasibility and Effectiveness of Opioid-free Pain Management after Discharge following Bariatric Surgery

Ali Safar[1], **Shuaib AlDalal**[1], **Phil Vourtzoumis**[1], **Sebastian Demytteneare**[1], **Olivier Court**[1], **Behzad Farzin**[1], **Julio Fiore Jr**[2], **Amin Andalib**[1]

[1] *Center for Bariatric Surgery, Department of Surgery, McGill University, Montreal, QC, Canada*

[2] *Steinberg-Bernstein Centre for Minimally Invasive Surgery and Innovation, McGill University Health Centre, Montreal, QC, Canada*

Introduction: While research on opioid-free surgery is expanding, studies specifically in patients after bariatric surgery remain limited. We aimed to evaluate the comparative-effectiveness of an opioid-free pain management protocol after discharge following bariatric surgery.

Methods: This prospective single-center cohort study included adult patients (≥ 18yo) undergoing same-day admission laparoscopic primary sleeve gastrectomy (SG) or Roux-en Y gastric bypass. After hospital discharge, patients received either opioid-based multimodal analgesia (control) or opioid-free multimodal regimen (intervention). Thirty-day postoperative analgesic use, emergency department (ED) visits and patient-reported outcomes (PROs) were collected using weekly surveys.

Results: A total of 99 eligible patients were approached: 57/59 agreed to be in the control group (median age 44 years, BMI 45 kg/m², 67% female, 82% SG) vs. 25/40 in the intervention group (median age 47 years, BMI 49 kg/m², 64% female, 76% SG). Only 37% of patients in the control group reported taking opioid post-discharge with a median consumption of 10 morphine milligram equivalents. Median pain severity scores at postoperative day 1, 2, 7, 14 and 30 were: 4.6, 3.8, 1.8, 0.6 and 0 in the control group vs. 3.5, 2.4, 1.1, 0.3 and 0 in the intervention group ($p>0.05$). Thirty-day ED visit due to postoperative pain occurred in 7% of patients in the control cohort vs. none in the intervention cohort.

Conclusion: Multimodal opioid-free analgesia is feasible and effective after discharge following bariatric surgery without negatively impacting pain-related PROs. Optimizing perioperative patient education can be used to enhance this approach.