Implementing Novel Modalities into an Institutional Enhanced Recovery after Bariatric Surgery (ERABS) Protocol

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Key Points:

- **ERABS protocol is associated with improved postoperative outcomes.**
- **TAP block, perioperative ketamine and fosaprepitant are suggested contributions**
- **Changes in perioperative care may reduce LOS without increasing overall complication rates**

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INTRODUCTION

- Enhanced Recovery after Bariatric Surgery (ERABS) pathways are associated with improved postoperative outcomes.
- Our study aims to assess efficacy and safety of three novel protocol contributions – transversus abdominis plane (TAP) blocks, ketamine and fosaprepitant – and their effect on length of stay (LOS) and postoperative complications.

METHODS AND MATERIALS

- Effectiveness and safety were retrospectively reviewed in patients who underwent Roux-en-Y gastric bypass (RYGB) or sleeve gastrectomy (SG)
- Six-year period in a single institution
- Group 1: patients were not exposed to interventions
- Group 2: patients were exposed to all three interventions

RESULTS

- January 2015 to August 2021
- 1,480 patients underwent primary SG (77.6%) or RYGB (22.4%)
- Of those,1,132 (76.5%) and 348 (23.5%) were in Groups 1 and 2, respectively
- Mean BMI and age were 45.87 vs 43.65 kg/m^2 and 45.53 vs 44.99 years in Groups 1 and 2, respectively.
- Suggested interventions were associated with lower operative times (84.79 ± 24.21 vs 80.78 ± 32.8 minutes, p = 0.025)
- Group 2: mean LOS decreased by 0.18 day (1.79 ± 1.04 vs 1.60 ± 0.90; p = 0.004)
- Overall complication rates were 8% and 8.6% for Groups 1 and 2
- Readmission rates were 5.7% vs 7.2% (64 pts vs 25 pts; p > 0.05)
- Reoperations were less prevalent in Group 2 (1.5% vs 1.1%; p = 0.79).

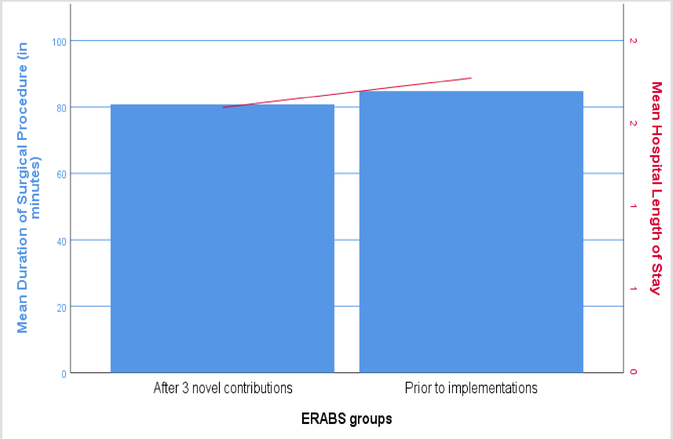
Total number of patients, n (%)	1480	Group 1	Group 2
LRYGB	331 (22.4%)	243 (21.5%)	88 (25.3%)
LSG	1149 (77.6%)	889 (78.5%)	260 (74.7%)
Operative time (Minutes)			
Mean ± SD	83 ± 26.53	84.79 ± 24.21	80.78 ± 32.8 *
Length of hospital stay (Days)			
Mean ± SD	1.73 ± 1.02	1.79 ± 1.04	1.60 ± 0.90 *
Readmissions, n (%)	89 (6.0%)	64 (5.7%)	25 (7.2%)
Reoperations, n (%)	21 (1.4%)	17 (1.5%)	4 (1.1%)
Overall complications, n (%)	120 (8.1%)	90 (8%)	30 (8.6%)

Table 2. Demographics, surgical details and complications, * p < 0.05

DISCUSSION AND CONCLUSION

- The proposed contributions in perioperative care may reduce LOS.
- While not increasing overall complication rates for patients undergoing SG and RYGB.





Graph 1. Mean LOS and mean surgical procedure duration, separated by groups

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