

Implementing ERAS in a Crisis-Stricken Healthcare System: Outcomes from Laparoscopic Colorectal Surgery in Lebanon

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Abstract

Introduction: Lebanon's healthcare system has faced significant challenges due to prolonged political and economic crises. In this context, cost-effective surgical care is essential. Enhanced Recovery After Surgery (ERAS) protocols, widely adopted globally, have been shown to improve postoperative recovery, reduce complications, and shorten hospital stays. In 2023, our tertiary care center implemented ERAS protocols for colorectal surgery.

Materials and Methods: We prospectively analyzed outcomes for 72 patients who underwent elective laparoscopic colorectal surgery between 2023 and 2024. The ERAS pathway included standardized preoperative education, intraoperative minimally invasive techniques with optimized anesthesia and fluid management, and postoperative early mobilization and feeding with multimodal, opioid-sparing analgesia. Primary outcomes were length of hospital stay, complication rates, and readmissions.

Results: The median hospital stay was 4 days. Readmission and ICU admission rates were low at 1.39% and 2.7%, respectively. Only 16% of patients required postoperative morphine. Early ambulation and oral intake were achieved in nearly all cases, with minimal need for blood transfusion (4.17%).

Conclusion: ERAS implementation in laparoscopic colorectal surgery demonstrated feasibility and showed promising perioperative outcomes, even within the constraints of Lebanon's strained healthcare system. Given the observational design and absence of a control group, causal inferences cannot be drawn. Nevertheless, the protocol was associated with short hospital stay, low complication rates, and limited opioid use, supporting its applicability in resource-limited settings.

Keywords: ERAS, colorectal surgery, postoperative recovery, low-resource healthcare, patient safety