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Six-month follow-up to evaluate quality of life in post-operative patients undergoing intestinal replacement following the ERAS protocol

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Abstract

The ERAS (Enhanced Recovery After Surgery) protocol represents a comprehensive and interdisciplinary approach to perioperative care, whose main objective is to accelerate patient recovery and reduce the length of hospital stay. Based on principles that seek to minimize surgical stress, optimize the patient's preoperative condition, and restore normal physiology in the shortest possible time, the ERAS model promotes coordinated care among surgeons, anesthesiologists, nurses, and other healthcare professionals. Several studies have demonstrated that its application not only improves clinical outcomes and the patient experience but also decreases the incidence of healthcare-associated infections and significantly reduces postoperative complications, establishing itself as an effective strategy for modernizing surgical practice and improving hospital efficiency.

Keywords: ERAS protocol, quality of life, SF-36 questionnaire

Introduction

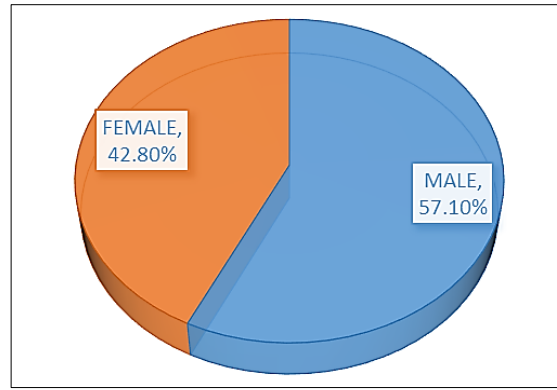
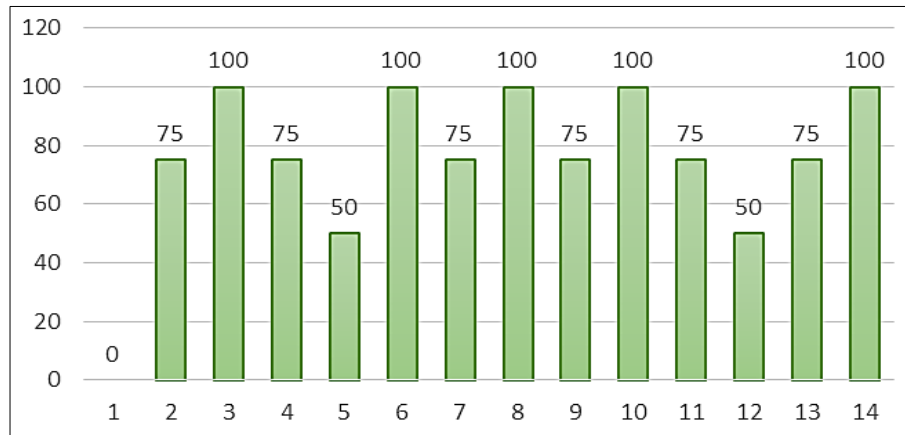
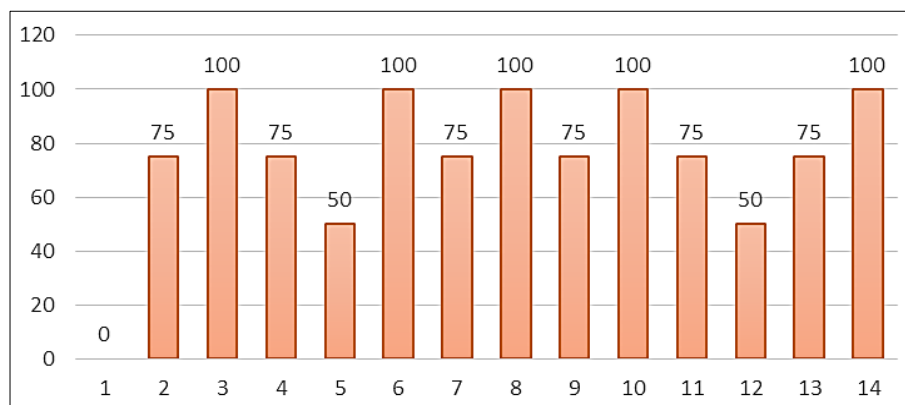
ERAS (Enhanced Recovery After Surgery) uses a comprehensive, interdisciplinary approach to perioperative care with the primary goal of reducing the length of hospital stay. Its core principles are: minimizing surgical stress, optimizing patients for surgery, and restoring normal physiology as quickly as possible afterward. These collaborative approaches to perioperative care not only reduce the length of hospital stay but are also an effective strategy for reducing the risk of healthcare-associated infections and postoperative complications.

Materials and Methods

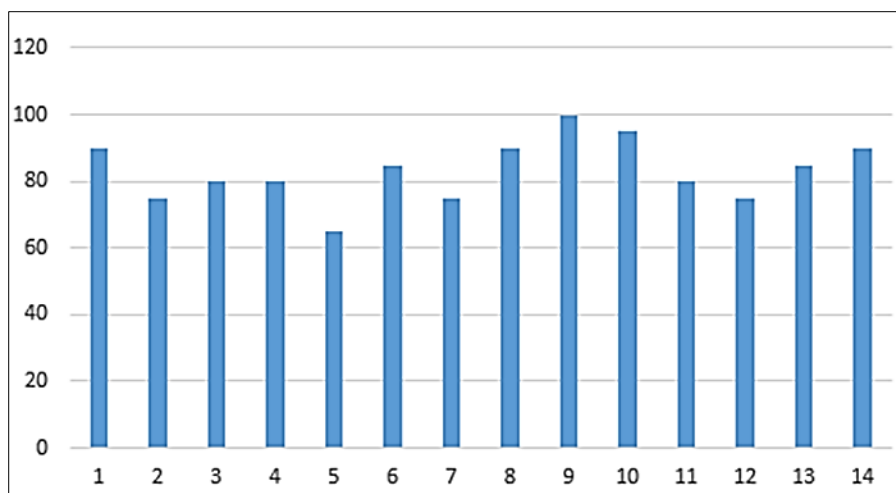
A descriptive, observational, single-center study was conducted using the SF-36 questionnaire to assess the quality of life of patients undergoing intestinal transit restoration surgery following the comprehensive interdisciplinary approach (ERAS protocol) between February 1, 2025, and July 1, 2025. Descriptive statistics were used. Tables and graphs were created to present the results.

Results

Data from 50 patients were analyzed, of whom 28% (14) followed the ERAS protocol, while 72% (36) received conventional surgical management. Sixty percent were male; 57.1% (8) in the ERAS group and 61.1% (22) in the conventional management group. The mean age was 46.4 years (± 15.4). Based on the SF-36 questionnaire, overall scores above 80 points were observed, indicating improved health and quality of life in patients undergoing intestinal transit restoration surgery following the ERAS protocol.

**Graph 1:** Study population gender.**Graph 2:** Average individual score Physical Function**Graph 3:** Average individual score physical role**Table 1:** Individual overall score per question (Body pain concept)

Question	Question	Average
100	75	87.5
80	100	90
80	75	77.5
100	50	75
100	100	100
80	75	77.5
80	100	90
100	75	87.5
80	100	90
80	75	77.5
80	50	65
100	75	87.5
80	100	90
80	75	77.5
		83.75



Graph 4: Total individual score vitality area

Discussion

The ERAS (Enhanced Recovery After Surgery) protocol has emerged as an innovative approach to improving postoperative recovery, promoting faster and more efficient recovery for patients undergoing surgical procedures.

The ERAS protocol includes a set of evidence-based strategies that cover various phases of the surgical process, from preoperative preparation to postoperative recovery. Its implementation aims to minimize physical and psychological stress in patients, which, in turn, improves immune function, reduces complications, and accelerates postoperative mobility.

Assessing the quality of life in patients undergoing bowel restoration surgery is fundamental to understanding the impact of this procedure on their physical, emotional, and social well-being. While the main objective of the surgery is to restore digestive function, it is clear that side effects can influence the patient's daily activities, affecting their quality of life. Barbero M. *et al.* (Spain, 2020) ^[23] concludes that greater adherence to the ERAS protocol is associated with a significant reduction in surgical stress and faster functional recovery, which can translate into a better postoperative quality of life. In our study, quality of life, analyzed using the SF-36 questionnaire, was successful at 6 months of follow-up after surgery.

Adherence >80% to the ERAS protocol was associated with a lower incidence of major complications, fewer days of hospitalization, and less postoperative ileus, as well as a lower anastomotic leak rate of up to 4.6% and a reduction in complications by improving adherence to the protocol.

Zarzuela Segura CJ, Solano Carrión S. (Dominican Republic, 2021) mentions that the implementation of the ERAS protocol in gastrointestinal surgery reduced hospital stay and postoperative complications, contributing to a faster recovery and potentially improving the patient's quality of life, as demonstrated by the present study.

Ripollés Melchor J. *et al.* (Spain, 2025) ^[27] report that greater adherence to the ERAS protocol reduces complications after colorectal surgery, which can contribute to faster recovery and improved quality of life for the patient, as demonstrated by the surveys and individualized results used for each patient who followed the ERAS protocol in our study.

Mendivelso FO, Barrios-Parra AJ, Zárate-López E, *et al.* (Colombia, 2024) ^[25] found that the application of the ERAS protocol in colorectal surgery accelerated recovery after the

surgical procedure, a factor that positively influences postoperative quality of life. In our study, the concepts of physical and social function, as well as the absence of limitations due to physical or emotional problems, were significant in terms of adequate quality of life.

Sánchez Córdoba AF (Chile, 2014) ^[26] concludes that the implementation of nutritional interventions within the ERAS protocol significantly decreased the duration of postoperative ileus, without increasing complications or mortality, suggesting an improvement in patient recovery and quality of life. In our study, all patients in whom the ERAS protocol was implemented maintained an adequate perception of overall health, as assessed by the SF-36 survey.

The main limitation of our study was the size of our study population, since unfortunately, our center does not follow a formal program to establish the standards for the ERAS protocol, leading to subsequent information bias. The strength of the study lies in demonstrating, through the survey used; Following the interventions carried out and standardized by the ERAS protocol, there is an adequate quality of life in the different areas analyzed, such as physical functioning, physical role, bodily pain, general health, vitality, social functionality, emotional role, and mental health of the patient. Therefore, it is important to establish standardized and multidisciplinary care protocols to have adequate statistics on perioperative management in order to reduce complications and hospital stay, which in turn secondarily impacts the quality of life.

Conclusion

The evaluation results confirm the hypothesis, demonstrating that in the short term, patients experience varied recovery depending on factors such as the extent of surgery, pre-existing comorbidities, and the social and psychological support received. However, the results obtained indicate an overall good quality of life; many patients regain the ability to lead a more normal life, with a significant improvement in bowel function and a decrease in digestive complications. Nevertheless, some continue to face challenges related to changes in bowel habits, persistent and persistent pain, and difficulties with daily activities, information documented after follow-up of patients who underwent the ERAS protocol.

It is crucial to recognize that, beyond the restoration of bowel continuity, the quality of life of these patients

depends on a comprehensive approach to care that includes not only medical treatment but also psychological interventions and social support. Appropriate postoperative management, involving nutritional education, physical therapy, and adequate psychological follow-up, is essential to maximize recovery. It is necessary to develop areas of study, analysis, and statistics to promptly implement rapid recovery after surgery protocols that influence patients' quality of life. Greater emphasis is needed on implementing this methodology in our hospital to obtain unbiased results with a larger patient population and more institutional staff involved.

Current evidence strongly supports the implementation of the ERAS protocol in bowel resection surgeries, especially colorectal procedures. High adherence to the protocol is associated with a significant decrease in postoperative complications, a reduction in the duration of ileus, and a shorter hospital stay. Specific interventions, such as early refeeding and perioperative nutritional strategies, play a crucial role in improving clinical outcomes.

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Author's Contribution

Not available

Conflict of Interest

Not available

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