

Results of an Enhanced Recovery after Surgery Protocol for Upper Gastrointestinal Surgery at a Super-Tertiary Referral Hospital in Thailand

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ABSTRACT

Background: Enhanced recovery after surgery (ERAS) protocol has been shown to reduce recovery period and postoperative complications. This prospective study aimed to evaluate the short-term outcomes of ERAS in patients who underwent upper gastrointestinal (UGI) surgery.

Methods: Patients who underwent surgery for benign or malignant diseases of the esophagus, esophagogastric junction, or stomach during October 2018-December 2019 were included. Outcomes compared between ERAS and conventional care (CC) included length of hospital stay (LOS), postoperative complications, mortality, recovery, and hospitalization cost.

Results: Eighty-eight (32 ERAS, 56 CC) patients were included. ERAS had shorter LOS (5.5 vs. 12.5 days, $p < 0.001$), earlier time to toleration of oral soft diet (3 vs. 8 days, $p < 0.001$), faster time to first defecation (71.6 vs. 114.5 hours, $p < 0.001$), early ambulation (43.8 vs. 84.6 hours, $p = 0.010$), and reduced hospitalization cost (197,140 vs. 256,315 Thai baht, $p < 0.032$). C-reactive protein level on postoperative day 1 was significantly lower in ERAS patients (61.3 vs. 87.9 mg/L, $p = 0.027$). BMI recovery occurred within 3 and 6 months in ERAS and CC, respectively. There was no significant difference in surgery-related or non-surgery-related complications between groups. No mortality was observed.

Conclusions: In a UGI surgical setting, ERAS accelerated recovery, reduced LOS, and lowered hospitalization cost.

Key words: Enhanced Recovery after Surgery (ERAS), upper gastrointestinal surgery, short-term outcomes, complications, hospitalization cost