

Abstract

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RELATIONSHIP BETWEEN OUTCOMES AND COMPLIANCE TO THE ERAS PROTOCOL FOR COLORECTAL SURGERY – A SINGLE INSTITUTION EXPERIENCE

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Objectives:

ERAS encompasses evidenced based perioperative components that work synergistically to reduce postoperative stress and preserve physiological function. Compliance to ERAS protocols has demonstrated a positive dose dependent relationship to outcomes. We review our results of our ERAS Program for Colorectal Surgery to evaluate if a similar trend is demonstrated.

Methods:

Data prospectively collected in the ERAS Interactive Audit System for patients undergoing elective colorectal surgery in a tertiary hospital in Singapore from March 2016 to August 2017 was analyzed retrospectively. Results of patients who achieved higher ($\geq 75\%$) compliance to the protocol were compared to those with a lower ($< 75\%$) compliance. The primary outcome measure was length of stay. Secondary outcomes were complication rates and readmission rates. Subgroup analysis of the 2 groups was performed to evaluate compliance to the protocol in each of the perioperative phases.

Results:

A total of 303 elective colorectal resections were performed. Overall mean compliance for the entire cohort was 77.4%, out of which 184 (60.7%) patients achieved $\geq 75\%$ compliance to the protocol. Compared to the group with lower compliance, this group had a shorter median length of stay (5 vs 7 days, $p < 0.001$), as well as a lower complication rate ($p = 0.001$). There is no significant difference in readmission rates. Further subgroup analysis of protocol compliance in these 2 groups showed that patients with higher overall compliance to the ERAS protocol also consistently achieved better compliance in all four perioperative phases (pre-admission and pre/intra/postoperative) phases.

Conclusions:

Our results are consistent with existing data - higher compliance to the ERAS protocol reduces length of stay and complication rates. Our subgroup analysis also suggest that it is important to maintain a high level of compliance throughout the entire protocol to maximise the synergistic effect of all ERAS components, thus highlighting that bundle compliance is important for the overall success of the program.

References:

