



Editorial Comment on “Enhanced Recovery After Surgery (ERAS) in Head and Neck Oncologic Surgery: A Case-Matched Analysis of Perioperative and Pain Outcomes”

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Enhanced recovery after surgery (ERAS) programs are multidisciplinary initiatives involving surgeons, anesthesiologists, coordinators, and nursing staff that aim to improve the perioperative patient experience and outcomes in major surgery.¹ Over the past 2 decades, ERAS programs have been successfully implemented for perioperative care, first in colorectal surgery and then extended to other fields.^{2–4} ERAS protocols call for optimizing elements of care that can significantly decrease perioperative morbidity and mortality.⁵ The principles of ERAS include patient education, goal-directed fluid management, multimodal analgesia, and early mobilization.⁶ Implementing ERAS pathways for major surgical procedures reduces hospital stays and complications, promotes maintenance of an anabolic state for better healing, and decreases reported pain and stress. The international ERAS society has published a series of guidelines with procedure-specific recommendations, however the evidence base for the interventions relevant to head and neck surgery was variable and amalgamated data from a variety of different head and neck cancer procedures. A consensus review recommended that elements relevant to perioperative care in head and neck cancer should be clinically evaluated in a more standardized fashion, highlighting the fact that head and neck surgery has not traveled as far along the ERAS path as other surgical fields.⁷

After that report, various groups adopted ERAS protocols for major head and neck surgery.⁸ A diverse set of studies with standardized perioperative management strategies have reduced perioperative pain,⁹ shown improved hemodynamic stability and reduction in the inflammatory response,¹⁰ and reduced hospital length of stay, pain, and opioid use.¹¹ While these studies suggest ERAS can improve outcomes in major head and neck surgery, they involve small patient sample sizes, measure single or limited outcomes, endorse limited interventions, and include variable patient populations. A multidisciplinary ERAS protocol implemented prospectively showed the feasibility of developing a standardized and comprehensive protocol for major head and neck surgery⁶ that follows the principles of ERAS. These interventions spanned the preoperative to postoperative and follow-up periods and included tracking outcomes across this timespan.

In this issue of *Annals of Surgical Oncology*, Kiong et al. use this comprehensive Head and Neck/Reconstructive Surgery ERAS (HNRS-ERAS) pathway and narrow the definition of major head and neck surgery to oncologic surgeries requiring microvascular free-flap reconstruction, since these procedures are complex, involve significant blood loss and postoperative pain, as well as lengthy hospital stays and complex multidisciplinary rehabilitation.¹²

The investigators conducted a case-matched cohort study using the HNRS-ERAS pathway to intervene and track outcomes based on the principles of patient education, goal-directed fluid management, multimodal analgesia, and early mobilization. The outcomes tracked were based on the HNRS National Surgical Quality Improvement Program (NSQIP) database.

Kiong et al. report that patients receiving ERAS strategies had demographics similar to the matched controls ($n = 200$ in each group); however, the ERAS group had fewer planned intensive care unit (ICU) admissions (4.0% vs. 14.0%), reduced mean length of stay by 1.5 days, and fewer overall complications (18.6% vs. 27.0%, $p = 0.045$). A significant reduction in morphine milligram equivalents (MMEs) required over 72 h was seen in the ERAS group (138.8 ± 181.5 vs. 207.9 ± 205.5 ; $p < 0.001$).¹²

This study represents a key addition to the ERAS literature in general and sets the standard for perioperative management for major head and neck surgery requiring free-flap reconstruction. The HNRS-ERAS pathway described should become a cornerstone of managing these complex patients.

DISCLOSURE Shuqing Chen and Baran D. Sumer have no relevant conflicts of interest to report.

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