

## Abstract

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Multidisciplinary team collaboration improves clinical outcome in patients undergoing esophagectomy

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### Objectives:

Esophagectomy and reconstruction are complex surgical procedures with high morbidity and mortality. We aimed to implement multidisciplinary team collaboration, based on ERAS guideline, to reduce postoperative complications and shorten hospital days.

### Methods:

We enrolled three patients with esophageal cancer during their concurrent chemoradiotherapy from May to June 2019. All patients received multimodal rehabilitations one month before the operation, which includes inspiratory muscle training and individualized cardiopulmonary endurance training by the physiotherapist, nutrition optimization by dietitians and anesthesia counseling by the anesthesiologist. All patients have carbohydrate loading 2 hours before the surgery. During the operation, anesthesiologists chose TIVA with propofol and remifentanyl for maintenance of anesthesia and optimize fluid balance utilizing goal-directed fluid therapy. Perioperative MMA regimens are intravenous Dexamethasone 10 mg before induction of anesthesia, intra-operative thoracic epidural infusion with Lidocaine and postoperative patient-controlled epidural analgesia as well as standing intravenous acetaminophen. Other elements of perioperative management contained protective lung ventilation strategy, postoperative nausea and vomiting prophylaxis, hypothermia prevention, glycemic control, early mobilization, and early enteral nutrition. One independent coordinator collected and audited all the processes.

### Results:

The characteristic and recovery parameters in patients enrolled in the ERAS and standard care groups (n=7) were presented in Table 1. As compared with standard care group, patients in the ERAS group have shorter postoperative ventilator-dependent time and shorter length of hospitalization. All patients in ERAS group achieved early mobilization goal since postoperative days 1. One patient weaned from the ventilator successfully right after the end of the operation without any complications.

### Conclusions:

Multidisciplinary team collaboration following evidence-based guideline makes early exudation and recovery from esophagectomy patients. We will include more patients in

need and promote better quality of care and all outcomes.

**References:**

Low, D.E., Allum, W., De Manzoni, G. et al. (2019). Guidelines for Perioperative Care in Esophagectomy: Enhanced Recovery After Surgery (ERAS®) Society Recommendations. *World J Surg* 43, 299-330.