Solution to the difficulty of lymphadenectomy along the left recurrent laryngeal nerve during minimally invasive esophagectomy

Dongming Guo

**Corresponding author:**Dongming Guo (1990056618@qq.com)*,* Department of Thoracic Cancer Center, Chongqing University Cancer Hospital, Chongqing 400030, China

**Abstract**

**Background** In the context of esophageal cancers, lymph nodes located along the left recurrent laryngeal nerve (RLN) exhibit significant involvement, posing significant challenges for lymphadenectomy. The objective of this study is to assess the safety and efficacy of a novel technique for lymphadenectomy, comparing it with the conventional approach.

**Methods** Between June 2023 and December 2023, 10 patients who underwent minimally invasive esophagectomy with gastroplasty and cervical esophagogastric anastomosis were enrolled in the study. Among them, 5 patients underwent the novel method, while 5 patients underwent the conventional method. We compared the number of harvested lymph nodes along the left RLN and assessed postoperative complications between these two groups.

**Results** In comparison to the conventional group, the novel method group exhibited a higher yield of harvested lymph nodes along the left RLN (5.36 vs 3.07). Moreover, the incidence of postoperative hoarseness was lower in the novel method group. The average duration of lymphadenectomy along the left RLN was 11.85 min in the novel method group and 11.51 min in the conventional group.

**Conclusions** The findings suggest that the novel method for lymphadenectomy along the left RLN in minimally invasive esophagectomy is both safe and effective. This technique holds promise for widespread adoption in esophagectomy procedures.

**Keywords** Complications, Left recurrent laryngeal nerve, Lymphadenectomy, Novel method

**BIOGRAPHY**

Dongming Guo has his expertise in evaluation and passion in improving the health and wellbeing. He is member of the Chinese Anti-Cancer Association. He is committed to the clinical and basic research of esophageal cancer. He worked years in research, evaluation, teaching and administration both in hospital and education institutions. This method is based on repeated practice and can benefit all patients with esophageal cancer.

* Mobile Number\*: +8615086660572
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