

Reliable Surgical Techniques for Lymphadenectomy Along the Left Recurrent Laryngeal Nerve During Thoracoscopic Esophagectomy in the Prone Position

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ABSTRACT

Background. Lymphadenectomy along the left recurrent laryngeal nerve (RLN) in esophageal cancer is important for disease control¹ but requires advanced dissection skills. We previously reported a reliable method² for lymphadenectomy along the left RLN during thoracoscopic esophagectomy in the prone position (TEP). The goal of this method is complete dissection of the lymph nodes along the left RLN in a safe manner.

Method. This procedure is performed for all resectable thoracic esophageal cancers. The essence of the method is to recognize the lateral pedicle as a two-dimensional membrane that includes the left RLN, lymph nodes, and primary esophageal arteries. By drawing the proximal portion of the divided esophagus and the lateral pedicle, identification and reliable cutting of the primary esophageal arteries, as well as distinguishing the left RLN from the lymph nodes, becomes simplified.

Results. We performed 46 TEPs using this method, with no conversion to an open procedure, at Kobe University in 2015. The body mass index of these patients was distributed between 19 and 32, and the mean number of harvested lymph nodes along the left RLN was 6.9 ± 4.2 . Left RLN palsy greater than Clavien–Dindo classification grade II occurred in four patients (8%)without permanent

paralysis, while the incidence of lymph node metastasis along the left RLN was 22%.

Conclusions. Our method for lymphadenectomy along the left RLN during TEP is safe and reliable. It has a low incidence of left RLN palsy and provides sufficient lymph node dissection along the left RLN.

DISCLOSURE Taro Oshikiri, Tetsu Nakamura, Hiroshi Hasegawa, Masashi Yamamoto, Shingo Kanaji, Kimihiro Yamashita, Takeru Matsuda, Yasuo Sumi, Satoshi Suzuki, and Yoshihiro Kakeji have no conflicts of interest or financial ties to disclose.

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