

Upper mediastinal lymph node dissection for esophageal cancer through a thoracoscopic approach

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Surgical treatment with extended mediastinal lymph node dissection is considered essential for the cure of esophageal cancer [1, 2]. Especially because lymph node metastasis to the upper mediastinal region is common [3], radical lymphadenectomy in this area is important. Recently, thoracoscopic esophagectomy has been introduced to offer less morbidity [4]. The authors present their procedure for the radical dissection of lymph nodes along both sides of the recurrent laryngeal nerves and below the aortic arch. A total of 45 patients with esophageal cancer underwent thoracoscopic esophagectomy. For this operation, the patient is placed in the left lateral decubitus position. Five or six thoracic trocars are introduced in the right chest without minithoracotomy. Monitors placed above a patient's head show the same direction without a reversed view so that all the surgeons and a scrub nurse can share the same view. First, the azygos vein is ligated and divided. The mediastinal pleura then are divided to expose the esophagus, and lymph node dissection along the right recurrent laryngeal nerve is performed. The upper part of the thoracic esophagus is circumferentially mobilized, which results in exposure of the left recurrent laryngeal nerve. Sharp dissection of lymph nodes around this nerve is performed. The entire esophagus is mobilized, and the infraaortic lymph nodes are dissected carefully. For the

authors' 45 patients, the mean number of retrieved lymph nodes was 22 (range, 2–52). The pathologic stages of the tumors were pStage 1 (15 cases), pStage 2A (7 cases), pStage 2B (4 cases), pStage 3 (13 cases), and pStage 4 (6 cases). All of the stage 4 cases were classified due to non-regional lymph node metastasis M1 (LYM). Five patients manifested irreversible hoarseness (11.1%), which happened, however, especially in early period. Three airway injuries were experienced, whose postoperative courses were uneventful. There were no hospital deaths in this series. The authors believe the thoracoscopic approach for lymphadenectomy is refined because of the enhanced visualization.

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