## AB025. LA10. Difficulties in node assessment with minimally invasive surgery and potential solutions

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**Abstract:** The significance of lymph node dissection for thymic malignancies is currently unclear. However, lymph node metastasis occurs in 25–26.8% of thymic carcinomas and 1.8–13.3% of thymomas and is reportedly a prognostic factor. Recently, endoscopic surgery has been indicated for the surgical treatment of thymic malignancies. The three endoscopic surgery approaches are cervical, lateral thoracic intercostal, and subxiphoid. The range of possible lymph node dissections anatomically differs for each approach. In the present study, we discussed the range of possible lymph node metastasis following surgery for thymic malignancies, depending on whether the lateral thoracic intercostal or the subxiphoid approach was used. While the VATS lateral approach cannot be used for lymph nodes in the anterior



region on the opposite side, it is simple enough to be used for deep-region lymph nodes. Taking an approach from the right facilitates paratracheal lymph node dissection. Taking an approach from the left may facilitate para-aortic and subaortic lymph node dissection. In addition, placing the patient in the lateral decubitus position also facilitates subcarinal lymph node dissection. The advantages of the subxiphoid approach are that a good field of vision of the cervical region can be obtained with a camera inserted from the midline of the body and the phrenic nerve on both sides can be confirmed. Accordingly, anterior lymph node dissection can be performed in a manner similar to median sternotomy. Deep-region lymph node dissection is more difficult via the subxiphoid approach than via the lateral thoracic intercostal approach. While paratracheal lymph nodes can be dissected to some extent, it is difficult to dissect subcarinal lymph nodes. If one prioritizes thorough anterior region lymph node dissection, either the subxiphoid or the bilateral lateral thoracic region approach needs to be taken. The subxiphoid approach offers the same view from the body midline as median sternotomy. Therefore, it is superior to the VATS lateral approach with regard to region lymph node dissection.

Keywords: VATS; thymectomy; lymph node dissection; subxiphoid

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