

Sentinel Lymph Node Biopsy for Papillary Thyroid Cancer: Commentary on the efficacy of Lateral Neck Sentinel Lymph Node Biopsy in Papillary Thyroid Carcinoma by Se Kyung Lee et al.

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In their article on the efficacy of lateral neck sentinel lymph node (SLN) biopsy in papillary thyroid carcinoma, Dr. Kim's group has detailed an impressive series of lateral neck SLN assessments for papillary thyroid cancer [1]. In their 94 patients, they were able to identify sentinel nodes in 60 (64%). In 19 of these patients, the sentinel node contained papillary thyroid cancer, leading the surgeons to perform a compartment-oriented neck dissection. They did not perform lateral neck dissection on the patients with negative sentinel node biopsies, and so sensitivity estimates are not available.

Sentinel node biopsy has been a marked advance in the management of patients with breast cancer and melanoma, because it allows accurate staging of patients with minimal morbidity. This technique has resolved the morbidity of routine axillary dissection for breast cancer, and the controversy of whether or not to perform prophylactic dissections for melanoma. However, this has not yet found a place in the therapy for thyroid cancer. In my opinion, there are several reasons for this: (1) sentinel node biopsy in the confined area of the neck is technically challenging; (2) the most common node basin for papillary thyroid cancer metastasis is the level 6 nodes, an area that has already been exposed during thyroidectomy and can be dissected with limited additional morbidity; (3) ultrasound evaluation of the lateral neck is sensitive for identification of non-palpable node metastases; and (4) lateral neck recurrence is uncommon after effective adjuvant treatment with radioiodine.

The contribution by this group has effectively answered some of these issues. Using the sentinel node biopsy after thyroidectomy to assess the lateral neck, rather than just the first sentinel node that is usually in the central neck, they have resolved some of the technical issues caused by the proximity of the radiotracer injection to the nodes in question. In addition, assessing only the lateral neck nodes focused the procedure on the nodes that would not otherwise be directly accessible during the thyroidectomy.

A remaining question in this area is the comparison of preoperative ultrasound evaluation of the lateral neck to the intraoperative sentinel node biopsy assessment. Unfortunately, it does not appear that this series of patients had preoperative ultrasound node mapping in order to delineate this. However, this should be a part of any further reports on this subject. Finally, the issue of whether it is important to remove these small amounts of disease, or whether they can be effectively managed by radioiodine therapy, will require careful clinical study.

Reference

1. Lee SK, Kim SH, Hur SM et al. (2011) The efficacy of lateral neck sentinel lymph node biopsy in papillary thyroid carcinoma. *World J Surg*. doi:10.1007/s00268-011-1254-9

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