





## SMALL THYROID BED MASSES FOUND AFTER INITIAL TREATMENT OF DIFFERENTIATED THYROID CANCER HAVE A BENIGN OUTCOME

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(thyroidectomy, level VI dissection, and RAI ablation). Small thyroid-bed nodules were found in 34% of

patients after initial therapy and only 9% increased in size over a median follow-up period of 5 years.

### COMMENTARY ●●●●●●●●●●●●●●●●

The risk of locoregional recurrence of papillary thyroid carcinoma in the cervical lymph nodes of the thyroid bed ranges from 15% to 25% (5). Careful structural evaluation by high-resolution ultrasound with measurement of basal or thyrotropin-stimulated thyroglobulin has the highest sensitivity for detecting thyroid cancer recurrence. According to the revised ATA thyroid cancer guidelines, cervical ultrasound to evaluate the neck should be performed 6 to 12 months after initial surgery then periodically thereafter depending on the risk for recurrence (3). This article demonstrates that small nodules in the thyroid bed were detected in 34% of their patients who had aggressive initial therapy including total thyroidectomy, central-neck dissection, and RAI remnant ablation in 84%. This study did not indicate whether the patients without RAI ablation had a higher risk of a mass in the thyroid bed consistent with a normal thyroid remnant. Thus, without biopsy it is not known what fraction of these masses represent normal remnant, nodal metastases, or invasive residual disease. The authors did not report any complications such as tracheal or recurrent nerve invasion during the follow-up period. The benign

behavior confirms that the growth of persistent/recurrent thyroid carcinoma is indolent. This article will change my practice, as my surgical experts worry that thyroid-bed masses after thyroidectomy, central-neck dissection, and RAI ablation represent a more aggressive, invasive residual tumor that places the patient at risk for recurrent nerve damage or tracheal invasion and should be removed. In fact, this study suggests that the presence of small masses in the thyroid bed, whether thyroid remnant or metastatic disease, grow slowly, with no evidence of invasive behavior. These patients with thyroid-bed masses can be under watchful waiting rather than be exposed to the risks of additional RAI therapy or difficult reoperation with a higher risk of hypoparathyroidism and recurrent laryngeal-nerve damage. The absence of suspicious sonographic features, abnormal cervical nodes, and rising thyroglobulin levels strongly predicts a quiescent behavior of the mass. This watchful observation with serial ultrasound evaluation is consistent with the revised ATA guideline recommendations regarding the observation without biopsy of small abnormal cervical lymph nodes in patients with differentiated thyroid carcinoma (3).

— Stephanie L. Lee, MD, PhD

### References

1. Frasoldati A, Presenti M, Gallo M, Caroggio A, Salvo D, Valcavi R. Diagnosis of neck recurrences in patients with differentiated thyroid carcinoma. *Cancer* 2003;97:90-6.
2. Kim J, Lee J, Shong Y, Hong S, Ko M-S, Lee D, Choi C, Kim S. Ultrasound features of suture granulomas in the thyroid bed after thyroidectomy for papillary thyroid carcinoma with an emphasis on their differentiation from locally recurrent thyroid carcinomas. *Ultrasound Med Biol* 2009;35:1452-7.
3. Cooper DS, Doherty GM, Haugen BR, Kloos RT, Lee SL, Mandel SJ, Mazzaferri EL, McIver B, Pacini F, Schlumberger M, et al. Revised American Thyroid Association management guidelines for patients with thyroid nodules and differentiated thyroid cancer. *Thyroid* 2009;19:1167-214.
4. Ito Y, Miyauchi A, Onoue H, Fukushima M, Kithara M, Higashiyama T, Tomoda C, Takamura Y, Kobayashi K, Miya A. An observational trial for papillary thyroid microcarcinoma in Japanese patients. *World J Surg* 2010;34:28-35.
5. Mazzaferri EL, Jhiang SM. Long-term impact of initial surgical and medical therapy on papillary and follicular thyroid cancer. *Am J Med* 1994;97:418-28.