



THYROID CANCER

Microscopic extension of thyroid cancer does not change the risk of cancer recurrence

BACKGROUND

Thyroid cancer is the fastest rising cancer in both women and men. Fortunately, the vast majority of patients do well and it is relatively rare to die of thyroid cancer. Indeed, in evaluating treatment options, cancer recurrence is the main clinical endpoint when discussing outcomes. An important predictive factor for thyroid cancer recurrence is when thyroid cancer extends beyond the edge of the thyroid. When that is seen after surgery, whether clearly visible or visible only under the microscope (microscopic extension), the decision to treat with radioactive iodine is frequently made. The authors of this study looked at the effect of microscopic extension on cancer recurrence in patients with small thyroid cancers.

THE FULL ARTICLE TITLE:

Nixon IJ et al The impact of microscopic extrathyroid extension on outcome in patients with clinical T1 and T2 well-differentiated thyroid cancer. *Surgery* 2011;150:1242-49.

SUMMARY OF THE STUDY

This study looked at 984 patients that had small thyroid cancers (<4 cm in size) that had not spread to the lymph nodes. A total of 115 patients (11.7%) had microscopic extension beyond the edge of the cancer. The remaining 869 patients (88.3%) had no evidence of extension of the

cancer. Patients with microscopic extension were more likely to have had a total thyroidectomy and received radioactive iodine treatment after surgery. All of the patients were followed for an average of 98 months (range 6 to 291), and there was no difference in cancer recurrence or survival between the groups. There were no thyroid cancer-related deaths in the group with microscopic spread of the cancer.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study suggests that microscopic extension does not affect thyroid cancer recurrence or survival in patients with small thyroid cancers that have not spread into the lymph nodes. These patients have an excellent chance of cure. In absence of other risk factors, it may be possible to avoid radioactive iodine treatment in these patients.

— Ronald Kuppersmith, MD

ATA THYROID BROCHURE LINKS

Thyroid cancer: http://thyroid.org/patients/patient_brochures/cancer_of_thyroid.html

Thyroid Surgery: http://thyroid.org/patients/patient_brochures/surgery.html

Radioactive Iodine Therapy: http://www.thyroid.org/patients/patient_brochures/radioactive_iodine.html

ABBREVIATIONS & DEFINITIONS

Thyroidectomy: surgery to remove the entire thyroid gland. When the entire thyroid is removed it is termed a total thyroidectomy. When less is removed, such as in removal of a lobe, it is termed a partial thyroidectomy.

Radioactive iodine (RAI): this plays a valuable role in diagnosing and treating thyroid problems since

it is taken up only by the thyroid gland. I-131 is the destructive form used to destroy thyroid tissue in the treatment of thyroid cancer and with an overactive thyroid. I-123 is the non-destructive form that does not damage the thyroid and is used in scans to take pictures of the thyroid (Thyroid Scan) or to take pictures of the whole body to look for thyroid cancer (Whole Body Scan).