



THYROID CANCER

Patients with multiple small thyroid cancers may have a better chance of being cured when treated with total or near-total thyroidectomy

WHAT IS THE STUDY ABOUT?

What treatment should be given when a person is found to have a very small thyroid cancer that is unlikely to be life-threatening? The most common type of very small thyroid cancers is papillary microcarcinoma, a papillary thyroid cancer less than 1 cm in size. These small cancers are often found by chance during testing for an unrelated issue. Patients are not likely to die from this type of cancer. It is especially unlikely to cause death if there are no features that make it higher risk and if the entire gland contains only one microcarcinoma. However, the recurrence of this cancer after the initial treatment is unclear. Some experts believe more aggressive treatment — including surgery to remove the entire thyroid gland and radioactive iodine therapy after surgery — decreases the chance of cancer returning and improves the ability to detect any return that may occur. Other experts believe a less aggressive approach is warranted, including surgery to remove only the half of the thyroid gland where the microcarcinoma is located and no radioactive iodine therapy. Rare but serious side effects may be more likely to occur with more aggressive treatment compared with a less aggressive treatment. This study looked at how often patients with papillary microcarcinomas had recurrence of their cancer after the initial therapy to identify features that may predict which patients may benefit from more aggressive therapy.

THE FULL ARTICLE TITLE:

Ross DS et al Recurrence after treatment of micropapillary thyroid cancer. *Thyroid* 2009;19:1043-8.

WHAT WAS THE AIM OF THE STUDY?

The aim of this study was to determine what features of papillary microcarcinomas were associated with recurrence of the cancer after the initial therapy.

WHO WAS STUDIED?

The study group included 611 patients who had papillary microcarcinoma without cancer spread after their initial treatment. These patients were part of the National Thyroid Cancer Treatment Cooperative Study Group Registry, a long term, multicenter, North American study

of all types of thyroid cancer that were registered from January 1987 to July 2006.

HOW WAS THE STUDY DONE?

The records of the patients were reviewed. All of the patients underwent initial thyroid surgery, either a lobectomy or a total thyroidectomy. There was no uniform protocol guiding the type of initial surgery or tests after surgery - patients were treated and followed as determined to be appropriate by their physician. Information gathered included: 1) whether the cancer returned and, if it did, when did it return, 2) what was the initial surgery, 3) was the patient treated with radioactive iodine, 4) was there more than one microcarcinoma within the thyroid gland, and 3) did the cancer spread to the lymph nodes in the neck.

WHAT WERE THE RESULTS OF THE STUDY?

As seen in other studies, Papillary microcarcinoma was the most common cancer. Most of the patients were women (78%), were at least 45 years of age (54%), had only one papillary microcarcinoma (62%) and did not have spread to the neck lymph nodes (78%). Over a period of 4 years, 38 patients (6%) had recurrence of their cancer. Patients were more likely to have a recurrence of their cancer if they had more than one microcarcinoma or had spread of the cancer to the lymph nodes in the neck. With those patients with multiple microcarcinomas, the cancer recurred more often if the patient had less than a total thyroidectomy as the initial surgery. The extent of surgery had no effect on recurrence if the patient only had 1 papillary microcarcinoma. There was no difference in cancer recurrence whether or not the patient was treated with radioactive iodine.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

Several studies have shown that individuals with spread to lymph nodes and/or with more than one papillary microcarcinoma are more likely to have recurrence and spread of their cancer. Other studies also have

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shown no difference in cancer return based on extent of surgery among patients with only one papillary microcarcinoma. Unlike other studies, this study does show that recurrence of cancer in patients with more than one papillary microcarcinoma is increased if less than a total thyroidectomy is done as the initial surgery.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

While most patients with papillary microcarcinoma do very well, those with more than one microcarcinoma may benefit from having a total thyroidectomy vs less extensive surgery. At this point, there appears to be no benefit for treating these patients with radioactive iodine.

— Ruth Belin, MD

ATA THYROID BROCHURE LINKS

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

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

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

ABBREVIATIONS & DEFINITIONS

Papillary thyroid cancer — the most common type of thyroid cancer.

Papillary microcarcinoma — a papillary thyroid cancer smaller than 1 cm in diameter.

Total thyroidectomy — Surgery to remove the entire thyroid gland.

Partial thyroidectomy — surgery that removes only part of the thyroid gland (usually one lobe with or without the isthmus).

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).

Lymph node — bean-shaped organ that plays a role in removing what the body considers harmful, such as infections and cancer cells.

Cancer recurrence — this occurs when the cancer comes back after an initial treatment that was successful in destroying all detectable cancer at some point.