



THYROID CANCER

Management of patients with papillary thyroid microcarcinoma

BACKGROUND

Thyroid cancer is the fastest rising cancer diagnosed in women. Many of these patients have small papillary thyroid cancer < 1 cm in size, so called papillary thyroid microcarcinoma. Since very few of these patients will die from their cancer, there is a debate on how aggressively these patients should be treated. The aim of this study was to identify the best management for these patients with very low risk thyroid cancer.

THE FULL ARTICLE TITLE:

Durante et al. Identification and optimal postsurgical follow-up of patients with very low-risk papillary thyroid microcarcinomas. *J Clin Endocrinol* 2010;95:4882-8

SUMMARY OF THE STUDY

A total of 312 patients from 9 centers in Italy with low risk papillary microcarcinoma without a family history of thyroid cancer, no previous radiation to the neck and head and no spreading of tumor outside the thyroid gland were included in this study and followed for 5-23 years. In all these patients, the thyroid gland was removed and patients were treated with suppressive doses of levothyroxine. After the thyroid surgery, additional radioactive iodine therapy was performed in 44% of the patients and 56% received no radioactive

iodine ablation. There was no evidence of recurrent cancer in any patient during the study and a negative ultrasound exam 1 year after the initial surgery was found in all of these patients. Persistent cancer was seen in only 3% of patients.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study confirmed that papillary microcarcinoma is a very low risk thyroid cancer. None of the patients developed recurrent thyroid cancer whether or not they were treated with radioactive iodine ablation. This study suggests that patients with papillary microcarcinoma do not need radioactive iodine therapy. Ultrasound of the neck is the most important study for the follow-up in these patients.

— Jamshid Farahati, 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

Thyroid Hormone Treatment: http://thyroid.org/patients/patient_brochures/hormonetreatment.html

ABBREVIATIONS & DEFINITIONS

Thyroid Ultrasound — a common imaging test used to evaluate the structure of the thyroid gland. Ultrasound uses soundwaves to create a picture of the structure of the thyroid gland and accurately identify and characterize nodules within the thyroid. Ultrasound is also frequently used to guide the needle into a nodule during a thyroid nodule biopsy.

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

Thyroid hormone therapy — patients with hypothyroidism are most often treated with Levothyroxine in order to return their thyroid hormone levels to normal. Replacement therapy means the goal is a TSH in the normal range and is the usual therapy.

Suppressive therapy means that the goal is a TSH below the normal range and is used in thyroid cancer patients to prevent growth of any remaining cancer cells.

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).

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