



THYROID CANCER

Patients with thyroid cancer and Hashimoto's thyroiditis have a better prognosis than those without thyroiditis

BACKGROUND

The rate of thyroid cancer is increasing, especially in women. Hashimoto's thyroiditis, the most common cause of hypothyroidism, is also common in women. Over 30% of patients who undergo surgery for thyroid cancer are found to also have Hashimoto's thyroiditis. Some prior studies have showed that thyroid cancer is less aggressive in patients with Hashimoto's thyroiditis. The aim of this study was to evaluate whether thyroid cancer patients who also have Hashimoto's thyroiditis have a better prognosis compared to thyroid cancer patients without Hashimoto's thyroiditis.

THE FULL ARTICLE TITLE:

Dvorkin S et al. Differentiated thyroid cancer is associated with less aggressive disease and better outcome in patients with coexisting Hashimoto's thyroiditis. *J Clin Endocrinol Metab* 2013;98:2409-14. Epub April 22, 2013.

SUMMARY OF THE STUDY

This is a study of 753 patients with thyroid cancer followed at a tertiary medical center in Tel Aviv since 1973. All study patients underwent total thyroidectomy and radioactive iodine therapy and were followed for more than one year after the initial treatment. Hashimoto's thyroiditis was present in 107 (14%) of the 753 patients. The patients in the Hashimoto's thyroiditis group were predominantly female (93% vs. 77%), had a smaller initial cancer (17.9 mm vs. 21.2 mm), had less spread of the cancer to the lymph nodes (23% vs. 34%) and had less persistent disease one year after the initial treatment (29% vs. 19%) compared to patients without Hashimoto's thyroiditis. After adjusting the analysis for other potentially contributing factors, the patients with both thyroid cancer and Hashimoto's thyroiditis had a lower risk of cancer spread to the lymph-nodes at presentation and lower risk of persistent disease at the end

of the follow-up period. The patients with Hashimoto's thyroiditis were also less likely to require additional radioactive iodine treatments.

The antithyroglobulin antibodies were monitored in 50 study patients who had no evidence of cancer persistence or recurrence. These antibodies disappeared after an average of 15 months (range of 2-78 months) following the thyroid surgery and radioactive iodine treatment. A total of 8 patients had persistent antibodies despite no evidence of recurrent disease.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study shows that patients with thyroid cancer who also have Hashimoto's thyroiditis have a less aggressive form of cancer and a better long-term prognosis. A possible explanation for these findings would be that the antibodies that attack the thyroid gland in patients with Hashimoto's thyroiditis also attack the cancer. Persistence of antithyroglobulin antibodies has been associated with persistent cancer. However, this study suggest that this is not the case if the patient also has Hashimoto's thyroiditis and can, therefore, suggest a better prognosis.

— Alina Gavriila, MD, MMSC

ATA THYROID BROCHURE LINKS

Thyroid cancer: <http://www.thyroid.org/cancer-of-the-thyroid-gland/>

Thyroid Surgery: <http://www.thyroid.org/why-thyroid-surgery/>

Radioactive Iodine Therapy: <http://www.thyroid.org/radioactive-iodine/>

Thyroiditis: <http://www.thyroid.org/what-is-thyroiditis/>

continued on next page



THYROID CANCER, continued

ABBREVIATIONS & DEFINITIONS

Thyroid cancer: this group includes papillary thyroid cancer, the most common type of thyroid cancer and follicular thyroid cancer, the second most common type of thyroid cancer.

Hashimoto's thyroiditis: the most common cause of hypothyroidism in the United States. It is an autoimmune disease caused by antibodies that attack the thyroid and destroy it.

Antibodies: proteins that are produced by the body's immune cells that attack and destroy bacteria and viruses that cause infections. Occasionally the antibodies get confused and attack the body's own tissues, causing autoimmune disease.

Antithyroglobulin antibodies: these are antibodies that attack the thyroid instead of bacteria and viruses, they

are a marker for autoimmune thyroid disease, which is the main underlying cause for hypothyroidism and hyperthyroidism in the United States.

Thyroglobulin: protein produced only by thyroid cells that can be measured in the blood.

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.

Cancer persistence: this occurs when the cancer cannot be completely destroyed after the initial treatment.

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