



THYROID CANCER

Hashimoto's thyroiditis is not a risk factor for thyroid cancer

BACKGROUND

Other than radiation exposure, there are no known causes for thyroid cancers. For many years, it was suggested that Hashimoto's thyroiditis, the most common cause of hypothyroidism, is a pre-cancerous condition that predisposes patients to thyroid cancer. This is mainly the results of studies that demonstrated increased presence of Hashimoto's thyroiditis surrounding cancerous lesions at the time of thyroidectomy. However, that association was not demonstrated in other studies that used thyroid biopsy to determine a diagnosis of either thyroid cancer or Hashimoto's thyroiditis.

In this very large study, the authors use thyroid biopsy to establish relationship between Hashimoto's thyroiditis and thyroid cancer. In addition, they studied that same relationship in a subset of their patients who were selected to have surgery.

THE FULL ARTICLE TITLE

Castagna MG et al. Nodules in autoimmune thyroiditis are associated with increased risk of thyroid cancer in surgical series, but not in cytological series: evidence for selection bias.

SUMMARY OF THE STUDY

A total of 2504 patients had a biopsy of 3990 thyroid nodules. The patients were grouped into four categories

depending on the presence or absence of markers of thyroiditis by lab and/or ultrasound features. Biopsy cytology results were classified into five categories depending on the risk of thyroid cancer.

The large study did not demonstrate an association between Hashimoto's thyroiditis and risk of thyroid cancer when biopsy cytology results were used. However, Hashimoto's thyroiditis was more likely to be found in those referred to surgery. Thyroid cancer was more common in those with elevated TSH level before surgery

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

There is no association between Hashimoto's thyroiditis and thyroid cancer. This is very reassuring to the many patients with hypothyroidism due to Hashimoto's thyroiditis.

— Mona Sabra, MD

ATA THYROID BROCHURE LINKS

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

Hypothyroidism: <http://www.thyroid.org/what-is-hypothyroidism>

Thyroid Nodules: <http://www.thyroid.org/what-are-thyroid-nodules>

ABBREVIATIONS & DEFINITIONS

Autoimmune thyroid disease: a group of disorders that are caused by antibodies that get confused and attack the thyroid. These antibodies can either turn on the thyroid (Graves' disease, hyperthyroidism) or turn it off (Hashimoto's thyroiditis, hypothyroidism).

Hypothyroidism: a condition where the thyroid gland is underactive and doesn't produce enough thyroid hormone. Treatment requires taking thyroid hormone pills.

Hashimotos thyroiditis: the most common cause of hypothyroidism in the United States. It is caused by antibodies that attack the thyroid and destroy it.

Thyroid nodule: an abnormal growth of thyroid cells that forms a lump within the thyroid. While most thyroid nodules are non-cancerous (Benign), ~5% are cancerous.

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.



IODINE DEFICIENCY, continued

Thyroid fine needle aspiration biopsy (FNAB): a simple procedure that is done in the doctor's office to determine if a thyroid nodule is benign (non-cancerous) or cancer. The doctor uses a very thin needle to withdraw cells from the thyroid nodule. Patients usually return home or to work after the biopsy without any ill effects.

TSH: thyroid stimulating hormone – produced by the pituitary gland that regulates thyroid function; also the best screening test to determine if the thyroid is functioning normally.