



## THYROID CANCER

### Is there a relationship between thyroid cancer and Hashimoto's thyroiditis?

#### BACKGROUND

Thyroid cancer is the fastest rising cancer in women and the most common type is papillary cancer. Hashimoto's thyroiditis is the most common cause of hypothyroidism, which is mostly seen in women. When thyroid cancers are removed at the time of surgery, the cellular changes of Hashimoto's thyroiditis is commonly seen surrounding the thyroid cancer. There has been a long standing debate regarding the relationship between thyroid cancer and Hashimoto's thyroiditis. Specifically, it is unclear if the thyroid inflammation seen in Hashimoto's thyroiditis causes the cancer or if the inflammation is the result of the cancer. Also, it is uncertain if thyroid cancers surrounded by inflammation behave better or worse than those without the surrounding thyroiditis. The goal of the study was to examine the relationship between papillary thyroid cancer and Hashimoto's thyroiditis.

#### THE FULL ARTICLE TITLE

Lee JH et al. The association between papillary thyroid carcinoma and histologically-proven Hashimoto's thyroiditis: a meta-analysis. *Eur J Endocrinol*. December 4, 2012.

#### SUMMARY OF THE STUDY

The authors examined the data of 38 published studies that previously looked at the relationship between

thyroid cancer and Hashimoto's thyroiditis. Hashimoto's thyroiditis was more likely to be detected around papillary cancer (40%) than around benign thyroid nodules (21%), in female patients (23%) compared to males (11%) and in papillary thyroid cancer (17%) compared to other types of thyroid cancer (8%). Patients with papillary cancer that also had Hashimoto's thyroiditis were less likely to have cancer recurrence on follow up as compared with those with papillary cancer in the absence of Hashimoto's thyroiditis.

#### WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The current study showed that Hashimoto's thyroiditis is commonly seen surrounding papillary thyroid cancer and, when present, it is associated with a better prognosis. Further studies are needed to confirm this association.

— 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>

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

#### ABBREVIATIONS & DEFINITIONS

**Papillary thyroid cancer:** the most common type of thyroid cancer.

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

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

**Thyroiditis:** inflammation of the thyroid, most commonly cause by antibodies that attack the thyroid as seen in Hashimoto's thyroiditis and post-partum thyroiditis. It can also result from an infection in the thyroid.