



THYROID CANCER

Thyroglobulin levels do not predict recurrence after lobectomy for low-risk papillary thyroid cancer

BACKGROUND

Thyroid cancer is the fastest rising cancer in women. Fortunately, most patients do well after initial treatment. Much of thyroid cancer management currently is based on the risk of cancer recurrence. Indeed, as we have recognized that patients with low-risk thyroid cancer have excellent survival, we are being less aggressive with treatments in order to minimize any long-term complications. Therefore, patients with smaller cancers confined to the thyroid are more frequently being treated with a thyroid lobectomy (removal of half the thyroid) rather than the traditional total thyroidectomy. After surgery and, if needed, radioactive iodine therapy, patients are monitored for cancer recurrence by ultrasound imaging and by a blood test (thyroglobulin), which is accurate after a total thyroidectomy, but there are few large studies looking at how thyroglobulin predicts recurrence after a lobectomy. This study examines the role of thyroglobulin in predicting cancer recurrence after thyroid lobectomy.

THE FULL ARTICLE TITLE

Park S et al 2018 Changes in serum thyroglobulin levels after lobectomy in patients with low-risk papillary thyroid cancer. *Thyroid*. Epub 2018 May 30. PMID: 29845894.

SUMMARY OF THE STUDY

The follow-up (measurement of thyroglobulin levels and documentation of cancer recurrence) of 208 patients at a single hospital in Korea were examined. Most patients had a microcarcinoma (<1cm). A total of 15 patients with cancer recurrence were added to look for predictive

factors. Only patients that did not need thyroid hormone supplementation, had normal TSH levels, and no thyroglobulin antibodies, were included. They looked at the thyroglobulin:TSH ratio (since TSH changes can affect the value of thyroglobulin), and assessed if there was a >20% increase in thyroglobulin level in 2 consecutive thyroglobulin levels and in whom there was a biopsy proven cancer recurrence.

Only 4 patients (2%) had a structural recurrence over an average follow-up of 7 years, with no deaths. Of the 19 total patients with cancer recurrence, 13 recurred with cancer in the remaining thyroid lobe and 6 in the lymph nodes. In general, the serum thyroglobulin as well as the thyroglobulin:TSH ratio increased by about 10% per year for all patients. However, both patients with and without recurrence had increases, and decreases in their thyroglobulin levels – there was no pattern or association and changes in thyroglobulin were therefore not predictive of recurrence.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Following serum thyroglobulin after thyroid lobectomy may not be accurate in predicting recurrence. This may mean that patients either should only have ultrasound surveillance, or, due to the low rate of recurrence and non-existent deaths, maybe no surveillance at all is needed, especially for microcarcinomas.

— Melanie Goldfarb, MD, MSc, FACS, FACE

ATA THYROID BROCHURE LINKS

Papillary and Follicular Thyroid Cancer: <https://www.thyroid.org/thyroid-cancer/>





THYROID CANCER, continued

ABBREVIATIONS & DEFINITIONS

Papillary thyroid cancer: the most common type of thyroid cancer. There are 4 variants of papillary thyroid cancer: classic, follicular, tall-cell and noninvasive follicular thyroid neoplasm with papillary-like nuclear features (NIFTP).

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

Lobectomy: surgery to remove one lobe of the thyroid.

Thyroglobulin 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: a protein made only by thyroid cells, both normal and cancerous. When all normal thyroid tissue is destroyed after radioactive iodine therapy in patients with thyroid cancer, thyroglobulin can be used as a thyroid cancer marker in patients that do not have thyroglobulin antibodies.

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

Thyroid Awareness Monthly Campaigns

The ATA will be highlighting a distinct thyroid disorder each month and a portion of the sales for Bravelets™ will be donated to the ATA. The month of **November** is [Hyperthyroidism Awareness Month](#) and a bracelet is available through the **ATA Marketplace** to support thyroid cancer awareness and education related to thyroid disease.

