



## THYROID CANCER

### Patients with thyroid cancers 1 to 2 cm are treated differently from those with cancers smaller than 1 cm.

#### BACKGROUND

Thyroid cancer is the most common cancer of the endocrine system with an estimated number of 62,000 new cases a year, leading to approximately 1950 deaths. The classical approach to the treatment of thyroid cancers was to advise that a patient remove the entire thyroid gland and that then they proceed to receive radioactive iodine treatment.

There has been an increased interest in both the medical field and the lay medical press about possible overtreatment of thyroid cancer. It is already known that most types of thyroid cancer carry an excellent prognosis: 5-year survival is approximately 98% and 10-year survival of >90%.

Most doctors who treat thyroid cancer base their recommendations regarding extent of surgery and the administration of radioactive iodine on guidelines that are developed by the American Thyroid Association. The most recent ATA thyroid cancer guidelines has made lobectomy an acceptable surgical treatment option for many patients. However, the American Joint Committee on Cancer (AJCC), a pathology committee, advises that the smaller thyroid cancers (up to 2 cm) be divided into two groups according to size (T1a <1 cm, T1b 1-2 cm). This would imply that these groups would have different prognosis and type of treatment. Given the importance that is given to cancer size in patient management, it is critical to understand whether this division in the staging system of the AJCC in the category of small tumors (<2cm) is necessary alter treatment options. The aim of this study was to determine whether separating thyroid cancers <2 cm into T1a and T1b is associated with different treatment strategies and patterns of patient survival.

#### THE FULL ARTICLE TITLE

Anderson KL Jr et al T1a versus T1b differentiated thyroid cancers: do we need to make the distinction? *Thyroid* 2016;26:1046-52. Epub July 6, 2016.

#### SUMMARY OF THE STUDY

This study was carried on by doing a analysis of two

large databases: The National Cancer Data Base (NCDB) and the Surveillance, Epidemiology, and End Results (SEER) program.

The NCDB is thought to capture approximately 85% of all new cancer cases in the US, and this study reviewed files from 1998 to 2012 to identify all thyroid cancer patients who had thyroid surgery. Data obtained included cancer size, age, sex, race/ethnicity and insurance status amongst others. The main outcome evaluated with this data base was overall survival.

The SEER program database is representative of approximately 28% of the American population and was used to find out the survival specific to thyroid cancer. Registries from 2004 to 2012 were used to identify all thyroid cancer patients who underwent thyroid surgery. Patients with cancers smaller than 2 cm were analyzed, and they were divided into two groups based on tumor size: T1a (< 1 cm) and T1b (1-2 cm). The databases were not combined at any point for the analysis.

A total of 149,912 patients met study criteria and were included in the study. Of these, 65% had T1a tumors and 35% had T1b tumors. The analysis revealed that patients with T1b tumors were more likely to undergo a total thyroidectomy (88 % vs 74%), have positive surgical margins ( 8% vs 4%), have spread of the cancer to the neck lymph nodes (36% vs 24%) and receive RAI treatment (60% vs 28%) than patients with T1a tumors.

However, there was no difference in the two groups with respect to overall survival (95% for both groups at 10 years) , or survival specific to thyroid cancer ( 99.2% vs 98.7%) for the T1a and T1b groups respectively.

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

This study shows that patients who have thyroid cancers with a size 1-2 cm tend to receive different treatment (more involved) than people who have cancers smaller than 1 cm but there is no significant difference in survival rates. This means that, moving forward, the



## THYROID CANCER, continued

current subdivision in the staging system by the AJCC within the T1 tumors may not be necessary. This study is important because it shows that many more patients may be able to choose and receive more conservative treatments for their tumors without compromising their survival from the disease.

— Jessie Block-Galarza

## ATA THYROID BROCHURE LINKS

Thyroid Cancer (Papillary and Follicular):

<http://www.thyroid.org/thyroid-cancer/>

Thyroid Cancer (Medullary): <http://www.thyroid.org/medullary-thyroid-cancer/>

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

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

## ABBREVIATIONS & DEFINITIONS

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

**Thyroidectomy:** surgery to remove the entire thyroid gland. When the entire thyroid is removed it is termed a total thyroidectomy. When less is removed, such as in removal of a lobe, it is termed a partial thyroidectomy.

**Lobectomy:** surgery to remove one lobe of the thyroid

**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).

**SEER:** Surveillance, Epidemiology and End Results program, a nation-wide anonymous cancer registry generated by the National Cancer Institute that contains information on 26% of the United States population. Website: <http://seer.cancer.gov/>

Watch this video to learn how you can support the ATA's ongoing research on Differentiated Thyroid Cancer!

ATA: Searching for Answers to Thyroid Cancer

