CLINICAL **THYROIDOLOGY** FOR THE **PUBLIC**

A publication of the American Thyroid Association

AMERICAN THYROID ASSOCIATION
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THYROID CANCER

Some patients with low-risk papillary thyroid cancer may not need surgery

BACKGROUND

Thyroid cancer is increasing, with the majority of this increase coming in patients with small papillary thyroid cancers. These patients have been shown to have a low risk (<2) of recurrence of their cancer after the initial surgery. In fact, some studies have actually followed some patients with regular ultrasound exams rather than recommending surgery and found no difference in long-term outcomes in patients as compared to similar patients that have surgery. With this in mind, the recent guidelines by the American Thyroid Association has suggested that active surveillance (following with ultrasound) be considered as an alternative to surgery in patients with low risk papillary thyroid cancer.

It is also known that most surgeries for thyroid cancer are done by surgeons who do few thyroid surgeries per year. We know that the higher the volume of thyroid cancer surgery done by an individual surgeon decreases the risk of complications, such as nerve injury/hoarseness and low calcium levels. Thus, if avoiding surgery is a reasonable option, we can avoid exposing patients to surgical complications.

This study was done to explore how many patients diagnosed with papillary thyroid cancer would meet criteria for active surveillance without surgery and how many surgical complications could be avoided.

THE FULL ARTICLE TITLE

Griffen A et al. Applying criteria of active surveillance to low-risk papillary thyroid cancer over a decade: How many surgeries and complications can be avoided? Thyroid 27:518-523.

SUMMARY OF THE STUDY

The records of 681 patients with papillary thyroid cancer who had thyroid surgery from January 2003 through December 2012 at a single center the US were reviewed. Patients were divided into 3 groups based upon ultrasound findings (size of the cancer, presence of abnormal lymph nodes, location of the cancer within the thyroid), patient characteristics (age, other medical problems), and medical team characteristics (experience). Categories for surveillance included ideal, appropriate, and inappropriate. Many of the patients inappropriate for surveillance had abnormal lymph nodes on ultrasound, for example.

A total of 418 of the 681 patients had pathology showing papillary thyroid carcinoma and 243 of theses (58%) had a biopsy before surgery showing papillary cancer. A total of 77 of these patients had nodules smaller than 1.5 cm on ultrasound before surgery with 27 under 1 cm and 50 ranging in size from 1.1-1.5 cm. A total of 15 of the 27 nodules under 1 cm were appropriate for surveillance, 12 were inappropriate, and none were ideal. Of the 50 nodules measuring 1.1-1.5 cm in size, 36 were appropriate, 9 were inappropriate, and 5 were ideal for active surveillance.

The patients with nodules less than 1cm who would have met the criteria for surveillance were treated with total thyroidectomy with central lymph node dissection in 13 of 15 patients, all with negative lymph nodes. Complications in this group included a chipped tooth and breast hematoma. No patients died or had recurrence.

The patients with nodules of 1.1.-1.5cm who met criteria for active surveillance had total thyroidectomy 95% of the time (39/41 patients). A total of 33 of the patients had central lymph node dissection with 14 with spread to lymph nodes (largest 4mm). No patients had death or recurrence. One patient had permanent vocal cord paralysis and one patient had permanent hypocalcemia. The total rate of permanent complications was ~5%.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

If we apply active surveillance as an option for treatment of papillary thyroid cancer up to 1.5cm, 25% of patients may be able to participate in surveillance. Offering patients active surveillance is safe and would allow avoidance of surgery and its possible complications. Additionally, active surveillance would avoid the need for thyroid hormone replacement.

— Julie Hallanger Johnson, MD

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THYROID CANCER, continued

ATA THYROID BROCHURE LINKS

Thyroid Cancer (Papillary and Follicular): http://www.thyroid.org/thyroid-cancer/

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

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).

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.

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.

Lymph node: bean-shaped organ that plays a role in removing what the body considers harmful, such as infections and cancer cells.

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

Hypocalcemia: low calcium levels in the blood, a complication from thyroid surgery that is usually short-term and relatively easily treated with calcium pills. If left untreated, low calcium may be associated with muscle twitching or cramping and, if severe, can cause seizures and/or heart problems.

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 **June** is **Differentiated Thyroid Cancer Awareness Month** and a bracelet is available through the ATA Marketplace to support thyroid cancer awareness and education related to thyroid disease.