



## THYROID CANCER

### Younger patients with small papillary cancers are more likely to progress to clinical disease than older patients

#### BACKGROUND

Thyroid cancer is the fastest rising cancer diagnosed in women. Papillary thyroid cancer is the most common type of thyroid cancer. Screening and autopsy studies suggest nearly 3.5-5% (18 million) Americans may have small papillary thyroid cancers (cancers less than 1 cm), also known as papillary microcancers. Surgery to remove a part or the entire thyroid gland (total or partial thyroidectomy) is often recommended for these patients. However, the true clinical course for these patients with papillary microcancer is not known. Some studies suggest that observation may be a reasonable option for most patients with papillary microcancer rather than immediate surgery. Other studies suggest an association of younger age with cancer progression. The present study examines the role of age with disease progression in patients with papillary microcancer to see if there is an association of younger age with progression of disease.

#### THE FULL ARTICLE TITLE

Ito Y et al. Patient age is significantly related to the progression of papillary microcarcinoma of the thyroid under observation. *Thyroid* 2014; 24:27-34. Epub November 14, 2013.

#### SUMMARY OF THE STUDY

A total of 1235 patients with thyroid nodules <1 cm and biopsy-proven papillary cancer were observed rather than undergoing immediate surgery. These patients were followed every 6-12 months by ultrasound for evaluation of cancer progression, for an average of 75 months. A total of 191 patients did undergo surgery for various reasons after observation. Only 1 of these patients had a recurrence of their cancer and none of these patients died of their thyroid cancer after surgery. A total of 58 patients

had an increase in the size for the cancerous nodule, 19 patients had spread of the cancer to the lymph nodes and 43 patients progressed to clinically apparent disease. A total of 51 patients (4%) received TSH suppressive therapy and none of these patients had progression of their cancer. The authors divided patients in to three groups based on age: young (<40), middle-aged (40-59) and old (>60). An age of <40 years was found to be an independent predictor of progression of clinical disease, predicting increased growth and development of spread to the lymph nodes.

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

This study suggests that patients with papillary microcancer may safely choose to be managed by observation with serial ultrasounds rather than undergo immediate surgery. Older patients with low-risk papillary microcancer are the best candidates for observation, as their risk of progression is approximately 2.5% over 10 years. Younger patients have a ten-fold higher risk of progression over 10 years, so caution should be taken when recommending observation alone in these patients. This study adds to the potential ability of patients to undergo watchful waiting with serial ultrasounds for their papillary microcancer rather than undergo immediate surgery. The role of TSH suppression in these patients remains unclear.

— Jennifer Rosen, MD

#### ATA THYROID BROCHURE LINKS

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

Thyroid Surgery: <http://thyroid.org/patients/patient-brochures/surgery.html>

#### ABBREVIATIONS & DEFINITIONS

**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.



## **THYROID CANCER**, continued

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

**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.

**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.