



THYROID CANCER

Younger patients with papillary microcarcinoma are more likely to progress to significant disease

BACKGROUND

Papillary thyroid cancer is the fastest rising cancer in women. Many of these cancers are microcarcinomas which are less than 1 cm in size. It is unclear whether these microcarcinomas will become clinically important or even if they need to be surgically removed. In prior studies, these authors reported on Japanese patients with biopsy-proven papillary thyroid microcarcinoma who were watched instead of having surgery. Another study from Japan showed younger patients were more likely to have growth or spread of the papillary thyroid carcinoma. In this study, the authors examined whether age would be a predictor of cancer growth or spread in patients with papillary thyroid microcarcinoma.

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

Patients with biopsy-proven papillary thyroid microcarcinoma were offered observation or immediate surgery. A total of 1235 patients chose observation and this group underwent ultrasound evaluation every 6 to 12 months. Cancer progression was determined by the spread of the cancer to lymph nodes, cancer growth of 3 mm or more, or cancer growth to a size of 12 mm. A total of 82% of patients had papillary thyroid microcarcinoma \leq 8 mm in size. The average period of observation was 60 months.

At 5 years, 4.9% of patients had growth of the cancers of 3 mm or more and at 10 years, 8% had growth of 3 mm or more. Lymph node spread developed in 1.7% of patients at 5 years and in 3.8% at 10 years. Progression to significant disease occurred in 3.9% of patients at 5

years and 6.8% of patients at 10 years. There appears to be a continued increase in the frequency of cancer growth, the development of lymph node spread, and progression to significant disease. Patients were divided into subgroups on the basis of age: young (<40 years; n = 169), middle-aged (40 to 59 years; n = 570), and old (\geq 60 years; n = 496). Cancer growth, new appearance of lymph-node spread, and progression to significant disease were all related to patient age. In the young age group, 9.5% progressed to significant disease in 5 years, as compared with 4.0% of the middle-aged group and 2.2% of the old group. At 10 years of follow-up, 22.5% of the young group, 4.9% of the middle-aged group, and 2.5% of the old group progressed to significant disease. An age of <40 years and a cancer size of 9 mm or larger were risk factors for progression to significant disease. An age of <40 years also predicted cancer growth and development of lymph node spread.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study suggests that low-risk papillary thyroid microcarcinoma can be observed without immediate surgery and that older patients are the best candidates for observation if they do not wish to have surgery. Younger patients with papillary thyroid microcarcinoma are at increased risk of their cancer becoming clinically significant and therefore should be treated with surgery in many cases.

— Ronald B. Kuppersmith, MD, FACS

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

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

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



THYROID CANCER, continued

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.