



THYROID CANCER

Tall-Cell Variant of papillary microcarcinoma is more aggressive than the classic type

BACKGROUND

Microcarcinoma refers to a cancer that is < 1 cm in size. The most common type of thyroid microcarcinoma is papillary microcarcinoma. In general these patients are at low risk for cancer recurrence and very few patients die of their cancer. However, in a small number of patients with papillary microcarcinoma the cancer spreads outside of the thyroid or spread to the lymph nodes. Thus, it is important to find out what clinical features in patients with microcarcinoma may cause the cancer to come back or to spread the cancer and how aggressively these patients should be treated. The tall-cell variant of papillary thyroid cancer makes up only about 1% of papillary thyroid cancers and is reported to be more aggressive than classic type of papillary thyroid cancer. The authors of this study tried to determine if tall-cell variant of microcarcinoma is more aggressive than the classic type of papillary microcarcinoma.

THE FULL ARTICLE TITLE

Bernstein J et al. Tall cell variant of papillary thyroid microcarcinoma: clinicopathologic features with BRAFV600E mutational analysis. *Thyroid* 2013;23:1525-31. Epub September 3, 2013.

SUMMARY OF THE STUDY

In this study, the authors compared 27 patients with tall-cell papillary with 26 patients with classic papillary microcarcinoma. The cancer characteristics such as spread of the cancer outside of the thyroid, spread to the lymph

nodes and BRAF-mutation were compared between both groups. All 27 patients with tall-cell microcarcinoma underwent total thyroidectomy. The average size of the cancer was about 7 mm and the average age of the patients was 53-56 years, neither of which was different between both groups. Spread of the cancer outside of the thyroid was seen in 33% of tall-cell cancers but in none of the classic microcarcinomas. Tall-cell type and spread of cancer to the lymph nodes were slightly higher in males than in females. The BRAF mutation was found in 93% of the tall-cell microcarcinomas and in 77% of the classic papillary microcarcinomas.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study suggests that the tall-cell variant of papillary microcarcinoma is more aggressive and the management should be differentiated from other papillary microcarcinomas. The authors suggest that all patients with tall-cell papillary thyroid cancer should have the thyroid should be removed by surgery, even when it occurs as a microcarcinoma.

— Jamshid Farahati, 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

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

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.

BRAF gene: this is gene that codes for a protein that is involved in a signaling pathway and is important for cell growth. Mutations in the BRAF gene in adults appear to cause cancer.