



THYROID CANCER

Is there a relationship between the subtype of papillary thyroid cancer and overall survival of patients?

BACKGROUND

Papillary thyroid cancer is the most common type of thyroid cancer and overall has an excellent prognosis. Despite this overall excellent prognosis, some patients do not do well and some may die of their cancer. Papillary thyroid cancer may be divided into several subtype categories by pathologists examining thyroid tissue removed at surgery. This study examines whether there is any relationship between the subtype of papillary thyroid cancer and overall survival of patients. The reason for the study was to determine if, after adjustment for the severity/extent of thyroid cancer, the subtype of papillary thyroid cancer itself predicted overall survival. This information could be used to counsel patients about their disease or potentially guide further treatments and follow-up.

THE FULL ARTICLE TITLE

Limberg J et al. Does aggressive variant histology without invasive features predict overall survival in papillary thyroid cancer? A National Cancer Database analysis. *Ann Surg*. Epub 2019 Oct 9. PMID: 31599802.

SUMMARY OF THE STUDY

The authors examined data on papillary thyroid cancer cancer patients treated between 2004 and 2015, who were recorded in the American College of Surgeons National Cancer Database (NCDB), which is a large American cancer registry. Patients were divided into those who had classic variant papillary thyroid cancer or another category of “aggressive variant” papillary thyroid cancer (including tall cell, diffuse sclerosing, or columnar cell variants). The authors analyzed data from a total of 170,778 patients, including 162,827 (95.3%) with classic papillary thyroid

cancer and 7951 (4.7%) with aggressive variant papillary thyroid cancer. Patients with aggressive variant papillary thyroid cancer were more likely than those with classic variant papillary thyroid cancer to have invasive features of their cancer (such as extension outside the thyroid, microscopic invasion into lymphatic channels or blood vessels within the thyroid, multiple thyroid tumors, positive lymph nodes, or distant metastases). The 5-year overall survival rate of patients with aggressive variants of papillary thyroid cancer (89%) was lower than that of patients with classic variant papillary thyroid cancer (95%), with a difference between groups also noted at 10 years. However, there was no significant difference in overall survival rate between these groups for patients without invasive disease, if the data were statistically adjusted for patient characteristics, cancer size at diagnosis, and the type of treatment.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The authors conclude that for papillary thyroid cancer patients who do not have evidence of invasive features of thyroid cancer, the overall survival rate is not significantly different between patients with classic variant papillary thyroid cancer to more aggressive variants. An implication of this study is the importance of considering the presence of invasive features as well as the subtype of thyroid cancer in counseling patients with papillary thyroid cancer about long-term outcomes. A limitation of this study is that the authors did not examine the risk of papillary thyroid cancer persistence or recurrence (i.e. cancer not being cured or coming back in the future), which are relevant outcomes for future study.

— Anna M. Sawka, MD, PhD

ATA THYROID BROCHURE LINKS

Thyroid Cancer (Papillary and Follicular): <https://www.thyroid.org/thyroid-cancer/>





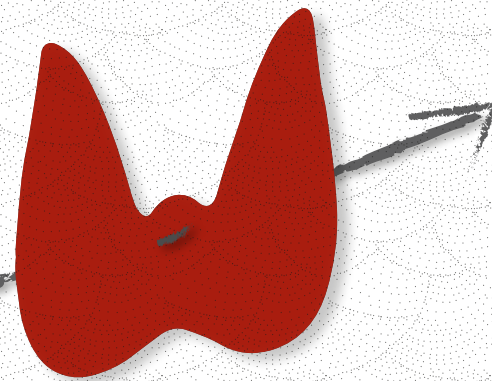
THYROID CANCER, continued

ABBREVIATIONS & DEFINITIONS

Papillary thyroid cancer: the most common type of thyroid cancer. There are several variants (subtypes) of

papillary thyroid cancer, such as classic, follicular, tall cell, diffuse sclerosing, and columnar cell PTC.

FEBRUARY
Hypothyroidism
Awareness Month



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