



## THYROID CANCER

### All tall-cell variants of papillary thyroid cancer are created equal

#### BACKGROUND

Papillary thyroid cancer is the most common cause of thyroid cancer and most cases have excellent outcomes. However, some papillary thyroid cancer variants have been shown to be more aggressive, showing higher rates of spread to both lymph nodes and outside of the neck as well as having increased rates of cancer recurrence and decreased survival. One of these variants is tall-cell, which describes how the cells look under the microscope. There has been disagreement over what proportion of cells need to be described as ‘tall-cell’ for patient outcomes to be worse. Current guidelines use 30% as a cutoff. Therefore, the authors reviewed all their cases of >1cm tall-cell papillary thyroid cancers over a 15 year period as well as a similar group of patients with classical papillary thyroid cancer as the control group. They had 2 separate pathologists re-review all of the slides and then compared outcomes of patients with <30% of cells that were tall-cell to patients with >30% of cells tall-cell.

#### THE FULL ARTICLE TITLE

Bongers PJ et al 2019 Papillary thyroid cancers with focal tall cell change are as aggressive as tall cell variants and should not be considered as low-risk disease *Ann Surg Oncol*. Epub 2019 May 21. PMID: 31115855.

#### SUMMARY OF THE STUDY

There were 131 patients with tall-cell papillary thyroid cancer (73% with <30% and 27% with >30%

tall-cell cells) examined in this study and compared to 104 patients with classical papillary thyroid cancer. Compared to the group of patients with classical papillary thyroid cancer, both tall-cell groups had higher rates of “aggressive” features, ie vascular invasion, gross extension of the cancer outside of the thyroid and spread to the lymph nodes in the neck. Patients with classical papillary thyroid cancer had a higher 5-year disease-free survival rate (92.7%) as compared with those with focal tall-cell change (76.3%) and tall-cell variant (62.2%). After taking into account cancer size and other aggressive features, patients with <10% tall-cell features had significantly lower rates of persistent or recurrent disease compared to those with 10-30%, 20-30%, and >30% tall-cell features.

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

Almost all tall-cell featured papillary thyroid cancers are created equal. They all appear to behave the same and have worse outcomes than classical papillary thyroid cancer. A tall-cell proportion of <10% focal changes should be used as the cutoff for predicting outcomes, which can be used to help counsel patients on treatment and prognosis. Those patients with a tall-cell proportion >10% should be targeted for more aggressive therapy and closer monitoring.

— Melanie Goldfarb, MD

#### ATA THYROID BROCHURE LINKS

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

#### 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).

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

