

**THYROID CANCER****Diffuse sclerosing variant of papillary thyroid cancer is aggressive and may have a poor outcome****BACKGROUND**

Thyroid cancer is the fastest rising cancer in women. The most common type of thyroid cancer is papillary thyroid cancer, which makes up approximately 85% of all thyroid cancers. Overall, papillary cancer generally has an excellent prognosis. However, some of its variants, such as tall cell and insular variants, may be more aggressive. Some studies suggest that the diffuse sclerosing variant of papillary thyroid cancer also can be more aggressive. The aim of this study was to describe the characteristics of patients with diffuse sclerosing variant of papillary thyroid cancer and report their outcomes.

THE FULL ARTICLE TITLE

Chereau N et al. Diffuse sclerosing variant of papillary thyroid carcinoma is associated with aggressive histopathological features and a poor outcome: results of a large multicentric study. *J Clin Endocrinol Metab* 2016;101:4603-10. Epub September 14, 2016.

SUMMARY OF THE STUDY

The authors of this study reviewed patient records from seven French hospitals. They found 56 patients who had surgery for diffuse sclerosing variant of papillary thyroid cancer from 2003-2014. Surgery consisted of removal of the whole thyroid gland (total thyroidectomy) as well as removal of the central and lateral lymph nodes in the neck. This was followed by radioactive iodine therapy. The diagnosis was confirmed by experts. These patients were followed up yearly for 7 years. The characteristics of these patients were then compared to 2945 patients with thyroid cancer that was not the diffuse sclerosing variant and 48 high-risk papillary thyroid cancer patients treated during the same time period.

When patients with diffuse sclerosing variant were compared to the patients with non-diffuse sclerosing variant thyroid cancer, they were found to have multiple cancers within the thyroid, larger cancer, more lymph nodes involved with cancer, more frequent extension of cancer beyond the thyroid gland, more invasion of the cancer into blood vessels and higher rates of recurrence (i.e., the cancer coming back). When patients with diffuse sclerosing variant were compared to the patients with other high-risk papillary thyroid cancer, they were found to have more extensive disease with the same recurrence risk but overall lower death rates.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study has implications for patients and physicians. Patients diagnosed with the diffuse sclerosing variant of papillary thyroid cancer present with aggressive features and high rates of extensive disease. The risk of recurrence is similar to other high-risk papillary thyroid cancers, despite extensive initial surgery and radioactive iodine ablation. Therefore, these patients should be carefully followed-up as they are more likely to require additional surgery in the future for local recurrence.

— Maria Papaleontiou, MD

ATA THYROID BROCHURE LINKS

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

Radioactive Iodine: <http://www.thyroid.org/radioactive-iodine/>

Thyroid Surgery: <http://www.thyroid.org/thyroid-surgery/>

ABBREVIATIONS & DEFINITIONS

Papillary thyroid cancer: the most common type of thyroid cancer. There are different variants of papillary thyroid cancer: classic, follicular, tall-cell, diffuse sclerosing, noninvasive follicular thyroid neoplasm with papillary-like nuclear features (NIFTP).

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.



THYROID CANCER, continued

Lymph node: bean-shaped organ that plays a role in removing what the body considers harmful, such as infections and cancer cells.

Radioactive iodine (RAI): this plays a valuable role in diagnosing and treating thyroid problems since it is taken up only by the thyroid gland. I-131 is the destructive form used to destroy thyroid tissue in the treatment of thyroid cancer and with an overactive

thyroid. I-123 is the non-destructive form that does not damage the thyroid and is used in scans to take pictures of the thyroid (Thyroid Scan) or to take pictures of the whole body to look for thyroid cancer (Whole Body Scan).

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