



THYROID CANCER

Routine preoperative chest CT does not identify distant metastases in papillary thyroid microcarcinoma

BACKGROUND

Thyroid cancer is one of the fastest rising cancers in the United States. A large part of this increase is a rise in the number of small thyroid cancers <1 cm, termed microcarcinomas. Imaging studies that include the neck region are a big reason these microcarcinomas are being identified. Importantly, not all of these microcarcinomas require surgery as it is increasingly recognized that patients with papillary microcarcinomas can be monitored with periodic ultrasound exams. This is called active surveillance. However, it is known that a very tiny number of patients with these microcarcinomas can spread outside of the thyroid. This study was done to see if there was any evidence that routine chest computerized tomography (CT) scans could identify patients with papillary microcarcinomas who develop spread of the cancer to the lungs.

THE FULL ARTICLE TITLE

Kawano S et al. 2020 Routine chest computed tomography at presentation does not identify distant metastasis in cT1aN0 papillary thyroid carcinoma. Thyroid. Epub 2020 May 27. PMID: 32368954.

SUMMARY OF THE STUDY

The study comes from a major thyroid center in Japan. They routinely do chest CT scans without contrast on patients with papillary thyroid cancer prior to surgery. They looked back on 1000 patients from January 2006 and May 2012 who had papillary thyroid cancer on biopsy and who were confirmed to have cancers <1 cm

in size at the time of surgery – thus confirmed to have papillary thyroid microcarcinoma. While monitoring patients with papillary thyroid microcarcinoma was very common at this center, these patients had surgery for different reasons, including known suspicious lymph nodes, Graves’ disease, an enlarging nodule while under active surveillance, patient or physician preference or co-existing hyperparathyroidism.

The study consisted of 885 females and 115 males with an average age of 55 years (range: 16–84 years). The average cancer size was 8 mm (range: 2–10 mm). Only 326 patients had any abnormality noted on CT. Of those, only 36 required any further evaluation and of those only 9 required surgical evaluation with the finding of 4 lung cancers and a pulmonary artery aneurysm requiring surgery. No one was found to have the spread of thyroid cancer to the lungs.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The authors concluded that for patients with papillary thyroid microcarcinoma, routine chest CT scans are not necessary prior to surgery or if they plan for active surveillance. The risk of developing spread to the lungs from papillary thyroid microcarcinoma is so low that patients should not be subjected to unnecessary costs, radiation exposure or unnecessary testing resulting from incidental findings.

— Marjorie Safran, MD

ATA THYROID BROCHURE LINKS

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





THYROID CANCER, continued

ABBREVIATIONS & DEFINITIONS

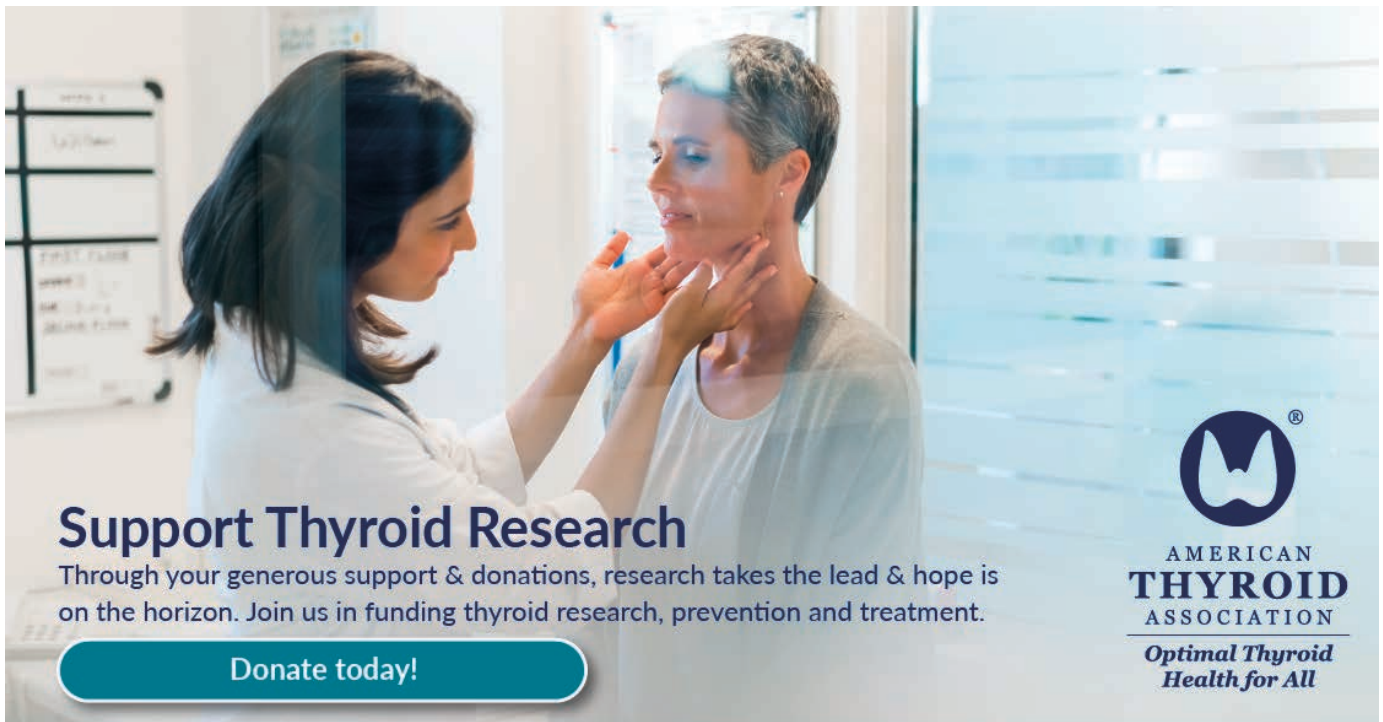
Papillary thyroid cancer (PTC): the most common type of thyroid cancer. There are 4 variants of papillary thyroid cancer: classic, follicular, tall-cell and noninvasive follicular thyroid neoplasm with papillary-like nuclear features (NIFTP).

Papillary microcarcinoma (PTMC): 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.


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.

Active surveillance: the term for avoiding surgery for small thyroid cancers by monitoring them over time with ultrasound and physical exam



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