AMERICAN THYROID ASSOCIATION
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Clinical Thyroidology® for the Public

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THYROID CANCER

Too many thyroid ultrasound exams lead to an increase in the diagnosis of low-risk thyroid cancer

BACKGROUND

Thyroid cancer is common and is more common in older patients. Indeed thyroid cancer is the fastest rising cancer in women. Despite this increase, death from thyroid cancer remains low and is unchanged. One reason for the increase in the diagnosis of thyroid cancer is the increased use of imaging studies that include the neck, as increased medical imaging of any sort will lead to an increase in the diagnosis of small, potentially harmless nodules. Up to 50% of individuals that have an imaging study of the neck will be noted to have a thyroid nodule. More imaging may result in an increase in the diagnosis of low risk thyroid cancers that may not harm patients, whereas the treatment (surgery for example) may be more harmful than the disease. This is called overdiagnosis, where increased detection of a disease does not help a population in terms of decreased harm from that disease. This study looks to see if more imaging leads to the diagnosis of more low risk thyroid cancers in patients over the age of 65.

THE FULL ARTICLE TITLE

Haymart MR et al 2018 Thyroid ultrasound and the increase in diagnosis of low-risk thyroid cancer. J Clin Endocrinol Metab. Epub 2018 Oct 16.

SUMMARY OF THE STUDY

The authors studied two databases of Medicare patients (age over 65) and looked at the years 2002-2013. One database gave information about the number of thyroid ultrasounds performed and the other gave information about thyroid cancer detection. The authors used statistical methods to compare the rate of imaging with the discovery of new thyroid cancers.

The average patient age was 76 years old and most were white women from metro areas. The rate of ultrasound testing increased about 20% per year each year of the study. Patients who had more medical problems were more likely to get a thyroid ultrasound. About 1 out of 3 thyroid cancers discovered were smaller than 1 centimeter. The authors estimate that if the number of ultrasounds performed remained the same as in 2002, about 1800 fewer thyroid cancers would be detected.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The authors conclude that the increase in thyroid ultrasound results in the diagnosis of more low risk thyroid cancers. This is important to patients because sometimes the treatment for a disease is more harmful than the disease itself. In an older patient with other medical problems, a thyroid surgery for a small low risk thyroid cancer may cause more harm than benefit. In order to reduce harm from treatment after identifying low-risk thyroid cancer, there needs to be a focus on decreasing unnecessary thyroid ultrasounds and to focus on the risk of a thyroid nodule to better guide care. The current American Thyroid Association guidelines have addressed this by recommending that small thyroid nodules should be observed and not biopsied. Further, many are recommending that small thyroid cancers can be observed and do not require surgery.

— Joshua Klopper, MD

ATA THYROID BROCHURE LINKS

Fine Needle Aspiration Biopsy of Thyroid Nodules: https://www.thyroid.org/fna-thyroid-nodules/

Papillary and Follicular Thyroid Cancer: https://www.thyroid.org/thyroid-cancer/

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THYROID CANCER, continued

ABBREVIATIONS & DEFINITIONS

Thyroid nodule: an abnormal growth of thyroid cells that forms a lump within the thyroid. While most thyroid nodules are non-cancerous (Benign), ~5% are cancerous.

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.

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).

Papillary microcarcinoma: a papillary thyroid cancer smaller than 1 cm in diameter