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THYROID NODULES

Management of thyroid nodules in patients over the age of 70 needs to consider coexistent serious diseases

BACKGROUND

Thyroid nodules are abnormal growths of thyroid cells that form lumps within the thyroid gland. These are very common as one gets older, with thyroid nodules found in up to 50% of the population over the age of 60. The majority of these nodules prove to be non-cancerous. However, data on older patients with thyroid nodules are limited, and management should not only be guided by risk of cancer of these nodules, but also by the risks of any intervention. The goal of this study was to present detailed information on the evaluation, treatment and outcome of patients with thyroid nodules who are 70 years of age or older.

THE FULL ARTICLE TITLE

Wang Z et al. 2018 Quantitative analysis of the benefits and risk of thyroid nodule evaluation in patients ≥70 years old. Thyroid 28:4764–471. Epub 2018 Apr 2. PMID: 29608439.

SUMMARY OF THE STUDY

The study included all patients ≥70 years old who had a neck ultrasound and thyroid biopsy between 1995 and 2015 at a single academic institution. Clinical, ultrasound and histology data, as well as patient coexistent medical conditions and outcomes were collected. Overall survival was used to assist with risk-to-benefit assessment.

Overall, 1129 patients 70 years of age or older with 2527 thyroid nodules measuring ≥1 cm were evaluated. Thyroid biopsy was found to be safe in all patients. Cytology was benign in 67.3% of patients. However, the results of the biopsy led to surgery in 208 patients, out of which 93 (44.7%) had benign results. Significant-risk thyroid cancer was identified in only 17 (1.5%) of patients following surgery. All of these cancers were identifiable by imaging and/or cytology by biopsy and were responsible for all thyroid cancer-related deaths (10 patients, 0.9%). During the 4-year follow-up of the study, another 160 deaths (14.4%) were identified which were not thyroid cancer-related. Survival analyses of these patients showed that increased risk of death was related to a non-thyroid cancer or heart disease at the time of thyroid nodule evaluation, compared to patients without these coexistent conditions.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study showed that ultrasound and biopsy are safe for patients ≥70 years old with thyroid nodules and can help identify thyroid cancer. The authors suggest that in view of the slow growth of most thyroid cancers, future lifespan of the patient and presence of other medical conditions should all be taken into account when evaluating these patients. Physicians should always weigh the benefits and risks before proceeding with referral to surgery for older patients with low risk nodules. This study recommends that a conservative approach should be favored and strongly considered in these patients, given the significant potential for harm compared to limited benefit. This study provides a guide for counseling and shared decision-making between patients and their treating physicians. However, physicians should be careful not to underestimate the number of additional quality years of life older patients look forward to, while trying to avoid the negative effects of overly aggressive treatment.

— Maria Papaleontiou, MD

ATA THYROID BROCHURE LINKS

Thyroid Nodules: https://www.thyroid.org/thyroid-nodules/

Thyroid Disease in the Older Patient: https://www.thyroid.org/thyroid-disease-older-patient/

THYROID NODULES, 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.

Thyroid biopsy: a simple procedure that is done in the doctor's office to determine if a thyroid nodule is benign (non-cancerous) or cancer. The doctor uses a very thin needle to withdraw cells from the thyroid nodule. Patients usually return home or to work after the biopsy without any ill effects.