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THYROID CANCER

Patients with papillary microcarcinoma under active surveillance are proceeding to have surgery less frequently.

BACKGROUND

Detection of thyroid cancer has been increasing in recent years. A big part of this is a marked increase in the number of small thyroid cancers (<1 cm, papillary microcarcinomas), which have been more frequently detected due to a large number of imaging tests done on patients, like CT scans, MRIs and ultrasounds that image the neck region. This detection occurs long before patients experience any symptoms. In fact, research has demonstrated that these small thyroid cancers are usually very low risk, and it is unclear of the benefit of proceeding with surgery to remove these cancers. Indeed, it appears that observing these patients without intervention is safe and can avoid surgery. This observation is called active surveillance, and involves frequent neck ultrasounds to make sure the cancer is stable and that no lymph nodes in the neck have signs of cancer. Active surveillance was first described in Japan in the 1990s and it was adopted into Japanese national guidelines in 2011 after it was shown to be safe in appropriately selected patients.

Over time, patients under active surveillance eventually undergo surgery because of cancer growth, development of spread to lymph nodes or if patients or their family members or their doctors become anxious or unsettled at the thought of "doing nothing" and decide to have it removed with surgery, even if there is no change in the cancer. In this study, the authors examined the trends and reasons for surgery after the initiation of active surveillance.

THE FULL ARTICLE TITLE

Sasaki T et al. 2020 Marked decrease over time in conversion surgery after active surveillance of low-risk papillary thyroid microcarcinoma. Thyroid. Epub 2020 Jul 14. PMID: 32664805.

SUMMARY OF THE STUDY

This study looked at the trend in thyroid surgery in patients with low-risk papillary microcarcinoma at Kuma Hospital in Japan from 2005 to 2017. They compared the rate of thyroid surgery before versus after November 2011. They had five (5) groups of low risk patients that underwent thyroid surgery: (1) patients with significant cancer growth or spread to a lymph node, (2) patient preference (3) physician preference (4) surgery due to other thyroid or parathyroid disease and (5) other reasons.

Of 3769 patients with low-risk papillary microcarcinoma, 1481 chose to undergo immediate surgery and 2288 (61%) chose active surveillance. In the active surveillance group, 162 patients (7%) underwent surgery >12 months after starting active surveillance. Surgery occurred mainly for cancer progression (57 patients; average 2.2 years after diagnosis), patient preference (43 patients; average 2.9 years after diagnosis), and physician preference (31 patients; average 2.8 years after diagnosis).

The first-half group (November 2011 or before) included 561 patients and 81 instances of surgery. The second-half group (after November 2011) included 1727 patients and 81 instances of surgery. Overall, patients in the second-half group were significantly less likely to undergo surgery than those in the first-half group (4.2% for second-half group vs. 12.3% for first-half group over 5 years). They noted that the second group had a lower rate of cancer progression, but also, doctors and patients had a lower rate of preference towards surgery, both of which led to the decrease in the rate of surgery.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

In this study, we are seeing the effect that evidence based medicine is having on the decision making of both patients and doctors. There is more trust in active surveillance for low risk papillary microcarcinoma as an appropriate management strategy because we now have large groups of patients that have been monitored for prolonged periods of time with no adverse outcomes. This shows that, over time, patients who are diagnosed with low risk papillary microcarcinoma can safely avoid surgery as long as they continue with having their cancer monitored.

— Maria Brito, MD

THYROID CANCER, continued

ATA THYROID BROCHURE LINKS

Thyroid Cancer (Papillary and Follicular): https://www.thyroid.org/thyroid-cancer/
Thyroid Surgery: https://www.thyroid.org/thyroid-surgery/
Thyroid Nodules: https://www.thyroid.org/thyroid-nodules/

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).

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

Active surveillance: the process of observing patients with papillary microcarcinoma and deferring surgery. This requires frequent monitoring of these patients with ultrasounds

CT scan: computed tomography scan is a medical imaging procedure that uses computer-processed combinations of many X-ray measurements taken from different angles to produce cross-sectional (tomographic) images (virtual "slices") of specific areas of a scanned object, allowing the user to see inside the object without cutting

Magnetic resonance imaging (MRI) is a medical imaging technique used in radiology to form pictures of the anatomy and the physiological processes of the body. MRI scanners use strong magnetic fields, magnetic field gradients, and radio waves to generate images of the organs in the body. MRI does not involve X-rays or the use of ionizing radiation, which distinguishes it from CT and PET scans.