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Clinical Thyroidology® for the Public

AMERICAN THYROID ASSOCIATION
Optimal Thyroid Health for All

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Volume 16 | Issue 3 | March 2023
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Editor's Comments

Welcome to another issue of *Clinical Thyroidology for the Public*! In this journal, we will bring to you the most up-to-date, cutting edge thyroid research. We also provide even faster updates of late-breaking thyroid news through Twitter at @thyroidfriends and on Facebook. Our goal is to provide patients with the tools to be the most informed thyroid patient in the waiting room. Also check out our friends in the **Alliance for Thyroid Patient Education**. The **Alliance** member groups consist of: the *American Thyroid Association, Bite Me Cancer, the Graves' Disease and Thyroid Foundation, the Light of Life Foundation, MCT8 – AHDS Foundation, ThyCa: Thyroid Cancer Survivors' Association, Thyroid Cancer Canada, Thyroid Cancer Alliance* and *Thyroid Federation International*.

We invite all of you to join our **Friends of the ATA** community. It is for you that the American Thyroid Association (ATA) is dedicated to carrying out our mission of providing reliable thyroid information and resources, clinical practice guidelines for thyroid detection and treatments, resources for connecting you with other patients affected by thyroid conditions, and cutting edge thyroid research as we search for better diagnoses and treatment outcomes for thyroid disease and thyroid cancer. We thank all of the *Friends of the ATA* who support our mission and work throughout the year to support us. We invite you to help keep the ATA mission strong by choosing to make a donation that suits you — it takes just one moment to give online at: www.thyroid.org/donate and all donations are put to good work. The ATA is a 501(c)3 nonprofit organization and your gift is tax deductible.

March is Medullary Thyroid Cancer Awareness Month.

In this issue, the studies ask the following questions:

- Does long-term use of methimazole decrease the risk of relapse of Graves' disease?
- What predicts poor response to radioactive iodine therapy in Graves' disease?
- Are positive thyroid antibody levels in mothers during pregnancy associated with higher risks of behavioral problems in preschool children?
- How common is the need for thyroid hormone therapy after thyroid lobectomy?
- Do people who previously underwent weight loss surgery have lower body calcium levels after thyroid surgery?
- What are the barriers to active surveillance for low-risk thyroid cancers?

We welcome your feedback and suggestions. Let us know what you want to see in this publication. I hope you find these summaries interesting and informative.

— Alan P. Farwell, MD

HYPERTHYROIDISM

Long-term, low-dose methimazole therapy is effective in protecting against relapses in Graves' disease

BACKGROUND

Graves' disease is the most common cause of hyperthyroidism in the United States. Graves' disease is an autoimmune disease where the body makes and antibody that attacks and turns on the thyroid, making it overactive. Recently, the use of anti-thyroid drugs has been increasing, with the idea that the antibody may decrease or go away, allowing the Graves' disease to go into remission. Towards this end, Graves' disease has traditionally been treated with a 1-1.5 year course of anti-thyroid medications, most commonly methimazole (MMI). However, after stopping this medication, about 40-50% of the patients experience a relapse of their hyperthyroidism. If Graves' disease relapses following a course of anti-thyroid drugs, a more definitive treatment is usually recommended, namely removal of the thyroid by surgery or destruction of the thyroid by radioactive iodine therapy. In the past few years, the approach to treatment has been changing to consider a longer course of MMI or even treatment with MMI without discontinuation. The reasons behind this approach include avoiding the adverse effects of surgery or radioactive iodine therapy, including hypothyroidism, as well as avoiding relapses of the Graves' disease. This study was conducted to understand whether long-term therapy with low-dose MMI could protect Graves' disease patients from relapses of hyperthyroidism.

THE FULL ARTICLE

Lertwattanarak R et al 2022 Benefits of Long-term continuation of low-dose methimazole therapy in the prevention of recurrent hyperthyroidism in Graves' hyperthyroid patients: A randomized prospective controlled study. Int J Endocrinol 2022:1705740. PMID: 36267362.

SUMMARY OF THE STUDY

This study was conducted in Thailand. The authors studied 184 patients with Graves' disease who had been on MMI for at least 18 months and had normal thyroid levels on low dose MMI (2.5-5 mg) for at least 6 months. Patients were divided in two groups: one group of patients were asked to stop the MMI. The patients on the other group was continued on MMI, 2.5-5 mg daily. Both groups had similar average age (about 40 years old), and about 85% were women. The patients were followed regularly for 3 years. At the end of the 3 years, the relapse rate on the group of patients that stopped the MMI was 41% versus 11% on the group that continued the medication. They also found that the risk of relapse was associated with age (patients younger than 40 years old had a higher risk of relapse). Importantly, the patients that were continued on MMI for at least 3 years, did not have any adverse effects to the medication.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study demonstrates that long-term treatment of Graves' disease with MMI is safe and effective in preventing relapse of hyperthyroidism in the majority of the patients. This option should be offered to patients, particularly to older patients and those patients who are not interested in definitive treatments and are at higher risk for relapse if the medication were to be stopped.

— Susana Ebner MD

ATA THYROID BROCHURES LINKS:

Hyperthyroidism (Overactive): https://www.thyroid.org/hyperthyroidism/

Graves' Disease: https://www.thyroid.org/graves-disease/

HYPERTHYROIDISM, continued

ABBREVIATIONS & DEFINITIONS

Hyperthyroidism: a condition where the thyroid gland is overactive and produces too much thyroid hormone. Hyperthyroidism may be treated with antithyroid meds (Methimazole, Propylthiouracil), radioactive iodine or surgery.

Graves' Disease: the most common cause of hyperthyroidism in the United States. It is caused by antibodies that attack the thyroid and turn it on.

Methimazole: an antithyroid medication that blocks the thyroid from making thyroid hormone. Methimazole is used to treat hyperthyroidism, especially when it is caused by Graves' disease.

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MARCH
Medullary Thyroid Cancer
Awareness Month

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HYPERTHYROIDISM

Predictors of radioactive iodine treatment failure in Graves' Disease

BACKGROUND

Graves' disease is a common cause of hyperthyroidism. It is caused by an antibody that attacks and turns on the thyroid, making it overactive. Treatment options include anti-thyroid medications, radioactive iodine therapy and surgical removal. Although the popularity of using long term antithyroid medications to treat hyperthyroidism has increased in recent years, some patients prefer or require more permanent solutions such as radioactive iodine therapy or surgery to remove the gland. Surgery removes the thyroid gland and patients require long term thyroid hormone replacement. Radioactive iodine therapy usually destroys the gland and causes hypothyroidism that also requires thyroid hormone replacement in most cases. Sometimes radioactive iodine therapy fails to treat the hyperthyroidism and patients can require either repeat radioactive iodine therapy treatments or alternative treatments including antithyroid medications or surgery to control the overactive thyroid. This study sought to examine the factors that predict radioactive iodine therapy failure in patients with Graves' disease.

THE FULL ARTICLE TITLE:

Shalaby M et al Predictive factors of radioiodine therapy failure in Graves' Disease: A meta-analysis. Am. J. Surgery. 223 287-296. 2021. PMID: 33865565.

SUMMARY OF THE STUDY:

This study included results from 18 studies with a total of 4822 study participants (approximately 75% were women). The studies were analyzed if they included adult patients treated for Graves' disease with one dose of radioactive iodine therapy and followed for a minimum of 6 months post treatment. The authors defined radioactive iodine therapy failure as persistent hyperthyroidism on thyroid laboratory testing or use of antithyroid medications 6-12 months after radioactive iodine therapy.

Results indicated overall radioactive iodine therapy failure rate to be 20.2% in this study. Males were more likely to demonstrate radioactive iodine therapy failure. Indicators of potentially more severe Graves' disease such as higher free T4 levels, larger thyroid glands, and higher pretreatment 24 hr iodine uptake were also associated with radioactive iodine therapy failure. Additionally, prior use of antithyroid medications and longer time between the diagnosis of Graves' disease and radioactive iodine therapy were also associated with higher failure rates. There were no significant differences noted based on dose of radioactive iodine therapy administered or patient age. This analysis identified certain patient factors that may impact radioactive iodine therapy success rates and should be discussed with the patient when treatment options for Graves' disease are being presented to assist in decision making.

WHAT ARE THE IMPLICATIONS OF THE STUDY?

There are several options for treating Graves' disease including radioactive iodine therapy, antithyroid medications and surgery. Many patients choose radioactive iodine therapy for treatment for a variety of reasons. This study identified potential risk factors for radioactive iodine therapy failure that should be discussed with patients so they can make informed decisions with their clinicians about which treatment option may be best for them.

— Whitney W. Woodmansee MD

HYPERTHYROIDISM, continued

ATA THYROID BROCHURE AND WEBSITE LINKS

Graves' Disease: https://www.thyroid.org/graves-disease/

Hyperthyroidism (Overactive): https://www.thyroid.org/hyperthyroidism/

Radioactive Iodine Therapy: https://www.thyroid.org/radioactive-iodine/

ABBREVIATIONS & DEFINITIONS:

Hyperthyroidism: a condition where the thyroid gland is overactive and produces too much thyroid hormone. Hyperthyroidism may be treated with antithyroid meds (Methimazole, Propylthiouracil), radioactive iodine or surgery.

Graves' Disease: the most common cause of hyperthyroidism in the United States. It is caused by antibodies that attack the thyroid and turn it on.

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*).

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THYROID AND PREGNANCY

Positive thyroid antibody levels in mothers during pregnancy are associated with higher risks of behavioral problems in preschool children.

BACKGROUND

Adequate thyroid hormone in pregnant women is important for normal development of babies. Low thyroid hormone levels in mothers during pregnancy have been associated with adverse outcomes in children's brain development, including lower IQ. Autoimmune thyroid disease, with elevated levels of thyroid peroxidase antibodies (TPOAb) and/or thyroglobulin antibodies (TgAb), is the most common cause of low thyroid levels in young women in countries with adequate iodine intake. In addition to potentially causing hypothyroidism, elevated thyroid antibodies in the mother during pregnancy have also been associated with higher risks of attention-deficit/hyperactivity disorder (ADHD) or autism spectrum disorder in the babies in some studies. However, not all studies show similar results and other studies report no such associations. The mechanism of how elevated thyroid antibodies in the mother during pregnancy affect children's behavioral development is also unclear. Given the lack of clear findings, this study evaluated potential associations between elevated thyroid antibodies in the mother during pregnancy and emotional and behavioral development in preschool-aged children.

THE FULL ARTICLE TITLE

Teng Y et al 2022 Sex-specific effect of thyroid peroxidase antibody and thyroglobulin antibody exposure during pregnancy on preschoolers' emotional and behavioral development: A birth cohort study. Thyroid 32:1229–1242. PMID: 35920111.

SUMMARY OF THE STUDY

A total of 2455 Chinese mother-child pairs were included in the study. Mothers were recruited during the first trimester of pregnancy. None of the mothers in the study had history of psychiatric disorder or personal or family history of thyroid disease. Thyroid hormone and thyroid antibody (TPOAb and TgAb) levels were measured in 1824 mothers in the first trimester, 1598 mothers in the second trimester, and 1588 mothers in the third trimester of pregnancy. Mother-child pairs with positive thyroid antibodies (either TPOAb or TgAb) were compared to mother-child pairs with both negative TPOAb and TgAb levels. Children were tested for emotional and behavioral development including stress, depression, anxiety, autism spectrum disorder, ADHD, and oppositional defiant disorder during preschool age through a standardized questionnaire.

Thyroid hormone levels in all mothers were normal during pregnancy. Only a small proportion (3.7%) of mothers with positive thyroid antibodies had high levels, while the majority (96.3%) of mothers with thyroid antibodies had low levels of thyroid antibodies. Boys born to mothers with positive TPOAb in any trimester had about two-fold higher risk of having autism spectrum disorder compared to children born to mothers with negative thyroid antibodies. Boys born to mothers with only positive TgAb (negative TPOAb) in the first trimester had a 1.7-fold higher risk of having ADHD compared to boys born to mother without thyroid antibodies. The degree of thyroid antibody level did not impact the risk of having autism spectrum disorder or ADHD in boys. Elevated thyroid antibody levels in the mother were not associated with other behavioral problems in boys. Risks of autism spectrum disorder or ADHD were not associated with maternal elevated thyroid antibody levels in girls. However, girls born to mothers with positive TPOAb in the third trimester had a 1.7-fold higher risk of having depressive symptoms compared to girls born to mother with negative thyroid antibodies. Depressive symptoms were more common among girls born to mothers with high levels of thyroid antibodies compared to girls born to mothers with low levels of thyroid antibodies.

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THYROID AND PREGNANCY, continued

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The authors concluded that elevated thyroid antibody levels in mothers during pregnancy affect emotional and behavioral development in children, but the effect may be different between boys and girls. Maternal TPOAb positivity in all trimesters was associated with a higher risk of autism spectrum disorder in boys. Maternal TgAb positivity in the first trimester was associated with a higher risk of ADHD in boys. Maternal TPOAb positivity in the third trimester was associated with a higher risk of depressive symptoms in girls.

This study brings an interesting question regarding the impact of maternal thyroid autoimmunity on children's brain development, especially their emotional and behavioral development. Currently, we do not fully understand how thyroid antibodies impact children's brain development unless they cause abnormal thyroid hormone levels. Further studies on the possible mechanism of how thyroid antibodies impact children's brain development would also be helpful to figure out how to prevent such effect.

— Sun Y. Lee, MD, MSc

ATA THYROID BROCHURE LINKS

Thyroid Disease in Pregnancy: https://www.thyroid.org/thyroid-disease-pregnancy/

ABBREVIATIONS & DEFINITIONS

Autoimmune Thyroid Disease: a group of disorders that are caused by antibodies that get confused and attack the thyroid. These antibodies can either turn on the thyroid (Graves' disease, hyperthyroidism) or turn it off (Hashimoto's thyroiditis, hypothyroidism).

Thyroid Peroxidase (TPO) Antibodies: these are antibodies that attack the thyroid instead of bacteria and viruses, they are a marker for autoimmune thyroid disease, which is the main underlying cause for hypothyroidism and hyperthyroidism in the United States.

Thyroglobulin (Tg) Antibodies: these are antibodies that attack the thyroid instead of bacteria and viruses, they are a marker for autoimmune thyroid disease, which is the main underlying cause for hypothyroidism and hyperthyroidism in the United States.

Hypothyroidism: a condition where the thyroid gland is underactive and doesn't produce enough thyroid hormone. Treatment requires taking thyroid hormone pills.

Placenta: A part of the uterus that supplies blood and nutrients to the developing baby during pregnancy. It forms both a barrier and a connection between the mother and the baby.

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THYROID SURGERY

Rate of thyroid hormone replacement after lobectomy for benign disease is higher than previously estimated

BACKGROUND

Surgery is an option to treat thyroid cancer as well as enlarged thyroid glands that cause symptoms such as difficulty swallowing, pressure on the neck or bulging in the neck. When the enlargement/abnormality/cancer is limited to one lobe, a lobectomy can be performed, leaving most of the rest of the thyroid intact. One of the reasons to remove only the lobe is to decrease the risk of developing hypothyroidism after surgery. Currently, hypothyroidism requiring thyroid hormone therapy following lobectomy may occur in 8 to 50% of cases. There is an increased likelihood of hypothyroidism after lobectomy in patients with elevated thyroid stimulating hormone (TSH) levels before surgery, positive thyroid peroxidase antibodies, thyroid cancer as the reason for the surgery, and small thyroid tissue left behind. This study was performed to determine the frequency of hypothyroidism and timing of beginning thyroid hormone therapy after lobectomy over a 15-year follow-up period.

THE FULL ARTICLE TITLE

Barranco H et al 2023 Thyroid hormone replacement following lobectomy: Long-term institutional analysis 15 years after surgery. Surgery 173:189–192.

SUMMARY OF THE STUDY

This study identified patients who underwent thyroid lobectomy, for any indication, at a single institution between 2005 and 2010. Studied patients had no prior thyroid surgery, prior or subsequent radioactive iodine therapy, or need for thyroid hormone before surgery. The primary outcome was initiation of thyroid hormone therapy in patients with TSH levels >4.5 mIU/L. The timing of thyroid hormone therapy initiation during the 10- to 15-year follow-up period was determined using provider notes, medication data, and/or direct telephone contact.

The study included 235 patients, 96.6% of whom had a benign pathology. Thyroid hormone therapy was started in 46.8% of patients. The average timing of thyroid hormone therapy initiation was 1.7 years after lobectomy, with 25% starting therapy 2 years after surgery. By 5 years after lobectomy, thyroid hormone therapy had been started in 89% of patients. Additional data in 45% of patients requiring thyroid hormone therapy demonstrated an average TSH level after surgery of ~9 mIU/L prior to starting thyroid hormone therapy. Of those with a benign pathology, 46.3% required thyroid hormone therapy. Compared with the patients who did not require thyroid hormone therapy, patients who required thyroid hormone therapy were more likely to have concurrent Hashimoto's thyroiditis. Age, sex, surgical indication, and cancer rates were similar between the thyroid hormone therapy and non- thyroid hormone therapy groups.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study showed that thyroid hormone replacement therapy is started in 46.3% of patients after lobectomy for benign disease. Further, 25% do not start therapy until 2 years after surgery. Accordingly, the authors suggest that thyroid function testing should occur annually for a minimum of 2 years after lobectomy.

— Alan P. Farwell, MD

ATA THYROID BROCHURE LINKS

Thyroid Surgery: https://www.thyroid.org/thyroid-surgery/

Hypothyroidism (Underactive): https://www.thyroid.org/hypothyroidism/

Thyroid Hormone Treatment: https://www.thyroid.org/thyroid-hormone-treatment/

THYROID SURGERY, continued

ABBREVIATIONS & DEFINITIONS

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*.

Lobectomy: surgery to remove one lobe of the thyroid.

Thyroid Hormone Therapy: patients with hypothyroidism are most often treated with Levothyroxine in order to return their thyroid hormone levels to normal. *Replacement therapy* means the goal is a TSH in the normal range and is the usual therapy. *Suppressive therapy* means that the goal is a TSH below the normal range and is used in thyroid cancer patients to prevent growth of any remaining cancer cells.

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THYROID SURGERY

Do people who previously underwent weight loss surgery have lower body calcium levels after thyroid surgery?

BACKGROUND

Surgery to promote weight loss (bariatric surgery) is effective in helping obese people lose weight. There are several different types of bariatric surgery, some of which involve decreasing the size of the stomach (so that less food can be eaten at any one time) and others that involve rerouting the path of food through the intestines, which decreases the overall amount of food that can be absorbed by the intestinal tract (called bypass surgery). While bariatric surgery does decrease the number of calories a person can take in or absorb, it similarly decreases a person's intake or absorption of important vitamins and minerals. For this reason, one possible side effect of bariatric surgery is vitamin and mineral deficiency, in particular, low levels of vitamin D and of calcium. Calcium plays a very important role in normal body function. Normal calcium levels are needed for good bone health and for normal muscle function. People who have low calcium levels may experience numbness/tingling, muscles spasms/cramps or even seizures, and the effects of low calcium levels may be severe enough to require hospitalization.

Body calcium levels are controlled by four tiny glands, called the parathyroid glands, which are located on the surface of the thyroid gland. All four of these glands make the same hormone, called parathyroid hormone, which helps the body absorb calcium and maintain normal calcium levels. For this reason, thyroid surgeons must be very careful to avoid damaging the parathyroid glands when removing the thyroid gland during thyroid surgery. The authors of this study aimed to determine if people who underwent bariatric surgery and then subsequently undergo thyroid surgery are more likely to have low calcium levels than thyroid surgery patients who have not had weight loss surgery.

FULL ARTICLE TITLE

Lorenz FJ et al 2022 Hypocalcemia after thyroidectomy in patients with prior bariatric surgery: A propensity score matched analysis from a national administrative database. Thyroid 32:1382–1391.

SUMMARY OF THE STUDY

The authors of this study looked at a large database that includes information about people who have undergone surgery in the United States. The study identified 29,792 people who had thyroid surgery between 2011 and 2021, of which 446 had undergone bariatric surgery prior to removal of their thyroid glands (total thyroidectomy). The authors found that the risk of low blood calcium levels after total thyroidectomy among people who had previously undergone bariatric surgery was 2-fold higher than for people who had not undergone previous bariatric surgery. This was true within 1 month of thyroid surgery, within 6 months of thyroid surgery and even at 12 months after thyroid surgery. When the authors specifically looked at the risk of low calcium after total thyroidectomy, relative to each type of bariatric surgery, they found that only bypass-type weight loss surgery increased the risk of low calcium levels in these patients.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study shows that the risk of low calcium levels after total thyroidectomy is significantly higher in patients who have previously undergone bypass-type bariatric surgery. This increased risk must be carefully explained to these patients by their thyroid surgeon before choosing to proceed with total thyroidectomy. In addition, the thyroid surgeon should avoid removing the entire thyroid gland (partial thyroidectomy) whenever possible for these patients, as parathyroid glands associated with thyroid tissue that is not removed will not be in danger of being damaged during thyroid surgery. Finally, people who have previously undergone bypass-type bariatric surgery who subsequently need to a total thyroidectomy should be treated with calcium and vitamin D, which helps the body absorb calcium, before and after surgery, to minimize risk of low calcium levels after total thyroidectomy.

— Jason D. Prescott, MD PhD

THYROID SURGERY, continued

ATA THYROID BROCHURE LINKS

Thyroid Surgery: https://www.thyroid.org/thyroid-surgery/

ABBREVIATIONS & DEFINITIONS

Hypocalcemia: low calcium levels in the blood, a complication from thyroid surgery that is usually short-term and relatively easily treated with calcium pills. If left untreated, low calcium may be associated with muscle twitching or cramping and, if severe, can cause seizures and/or heart problems.

Parathyroid Glands: usually four small glands located around the thyroid that secrete parathyroid hormone (PTH) which regulates the body's calcium levels.

Parathyroid Hormone (PTH): the hormone that regulates the body's calcium levels. High levels of PTH cause hypercalcemia, or too much calcium in the blood. Low levels of PTH cause hypocalcemia, or too little calcium in the blood.

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*.

Partial Thyroidectomy: surgery that removes only part of the thyroid gland (usually one lobe with or without the isthmus).

Vitamin D: a vitamin that is important for maintaining calcium levels by increasing the absorption of calcium from the gut. Vitamin D is made in our skin after exposure to the sun.

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THYROID CANCER

Active surveillance of low-risk thyroid cancer is not easy

BACKGROUND

There has been a rise in the number of patients with thyroid cancer in the United States. A large number of these new cases are small thyroid cancers which are limited to the thyroid gland and do not show evidence of having spread to the lymph nodes of the neck. Fortunately, the prognosis is excellent, as the death rates for thyroid cancer have remained very low, with approximately 0.4 deaths per 100,000 patients, and rates are even lower for the very small cancers that are limited to the thyroid gland.

The usual treatment for thyroid cancer has been thyroid surgery. However, the option following certain small low risk papillary cancers with ultrasound and deferring surgery, known as active surveillance, has been described as an alternative to surgical treatment by some groups in Japan, and, more recently, in the United States. However, and in spite of the growing acceptance of this approach as a suitable option for management of selected patients with thyroid cancer, it is not very clear what are the rates of use of active surveillance in the United States, outside of selected centers.

This study was done in order to understand physicians' attitudes toward use of active surveillance, how often it is being used, and what are the barriers to its use in a diverse group of physicians who treat thyroid cancer patients in the general population.

THE FULL ARTICLE TITLE

Hughes DT et 2022 Barriers to the use of active surveillance for thyroid cancer: Results of a physician survey. Ann Surg 276(1):e40–e47. PMID: 33074908.

SUMMARY OF THE STUDY

Surgeons and endocrinologists identified as having treated patients who participated in the SEERS (Surveillance, Epidemiology and End Results) registries in Georgia and Los Angeles were surveyed during 2018 and 2019. A total of 654 physicians received surveys, and there were 448 responders (69%). The surveys included questions such as:

- Is active surveillance an appropriate action for some patients with thyroid cancer?
- Do you recommend active surveillance of thyroid cancer patients?
- What are barriers to active surveillance?

Of the physicians who responded, 30% were general surgeons; 28% were ENT specialists and 42% were endocrinologists.

The majority of physicians (76%) believed that active surveillance was an appropriate management option but only 44% used it in their practice. Physicians reported multiple barriers to using active surveillance such as: patient refusal (80.3%), concern about loss to follow up (78.4%), patient worry (57.6%) and concerns about malpractice lawsuits (50.9%).

Physicians who practice in an academic center were more likely to accept the use of active surveillance. Physicians who accepted that active surveillance was appropriate but did not use in their practice were more likely to have been more years in practice and have greater patient volume .

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study is innovative because it focuses on the influence of physician factors and physician perception of patient factors on the acceptance of and use of active surveillance for thyroid cancer. This study is important to patients because there has been a shift from more to less intensive management for thyroid cancer and therefore, the concept of active surveillance has gained attention. Although physicians managing thyroid cancer have widely accepted active surveillance as an appropriate management option, less than half of them offer it to their patients. Understanding and addressing the different barriers to its use is key to increasing availability of this management option.

— Jesse Block-Galaraza, MD

THYROID CANCER, continued

ATA THYROID BROCHURE LINKS

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

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).

Active Surveillance: the plan to follow patients with small thyroid cancers with ultrasound and deferring surgery unless the cancer increases in size.

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.

SEER: Surveillance, Epidemiology and End Results program, a nation-wide anonymous cancer registry generated by the National Cancer Institute that contains information on 26% of the United States population. Website: http://seer.cancer.gov/

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ATA Alliance for Thyroid Patient Education

GOAL The goal of our organizations is to provide accurate and reliable information for patients about the diagnosis, evaluation and treatment of thyroid diseases. We look forward to future collaborations and continuing to work together toward the improvement of thyroid education and resources for patients.

American Thyroid Association
www.thyroid.org
ATA Patient Resources:
www.thyroid.org/thyroid-information/
Find a Thyroid Specialist: www.thyroid.org
(Toll-free): 1-800-THYROID
thyroid@thyroid.org

Bite Me Cancer
www.bitemecancer.org
info@bitemecancer.org

Graves' Disease and Thyroid Foundation
www.gdatf.org
(Toll-free): 877-643-3123
info@ngdf.org

Light of Life Foundation
www.checkyourneck.com
info@checkyourneck.com

MCT8 – AHDS Foundation
mct8.info
Contact@mct8.info

Thyca: Thyroid Cancer Survivors' Association, Inc.
www.thyca.org
(Toll-free): 877-588-7904
thyca@thyca.org

Thyroid Cancer Alliance
www.thyroidcanceralliance.org
www.thyroidcancerpatientinfo.org
Rotterdam, The Netherlands

Thyroid Cancer Canada
www.thyroidcancercanada.org
416-487-8267
info@thyroidcancercanada.org

Thyroid Federation International
www.thyroid-fed.org
tfi@thyroid-fed.org

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