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Clinical Thyroidology® for the Public

AMERICAN THYROID ASSOCIATION
Optimal Thyroid Health for All

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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 X (previously known as 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,* 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.

June is Differentiated Thyroid Cancer Awareness Month.

In this issue, the studies ask the following questions:

- Can I only have half my thyroid removed even if my thyroid cancer has spread to my lymph nodes?
- What discussions are helpful in choosing surgery for low-risk thyroid cancer?
- Surgery and RAI treatment in papillary thyroid cancer - is more always better?
- Can a blood test identify cancer cells in patients with medullary thyroid cancer?
- Does treating subclinical hypothyroidism decrease the risk of death?
- Low FT4 and insulin needs in GDM: Causation, correlation, or confounding??

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

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THYROID CANCER

Can I only have half my thyroid removed even if my thyroid cancer has spread to my lymph nodes?

BACKGROUND

Thyroid cancer is common. Fortunately, thyroid cancer has an excellent prognosis. Surgery to remove the thyroid is usually the initial treatment. Historically, the entire thyroid was removed (total thyroidectomy). Currently, removing the half of the thyroid that contains the cancer (lobectomy) has become more common as guidelines and practices of physicians are considering less invasive treatments for thyroid cancer. Indeed, recent guidelines from the American Thyroid Association (ATA) recommend basing the decision of total thyroidectomy vs lobectomy on the rick of the cancer recurring after initial treatment.

Most patients who have thyroid cancer that has spread to the lymph nodes are considered intermediate- high or high risk of recurrence, according to the ATA guidelines. These patients are usually treated with a total thyroidectomy, lymph node removal, and radioactive iodine therapy to destroy all remaining thyroid cells after surgery. Less aggressive treatment options would include having a lobectomy, or half the thyroid gland surgically removed, and not receiving radioactive iodine therapy.

The goal of this study is to see if patients who had the previous, more aggressive treatments for their thyroid cancer do as well in the first 5 years after treatment as those patients who received less aggressive treatments.

THE FULL ARTICLE TITLE

Scholfield DW, et al. Thyroid lobectomy and neck dissection for N1b papillary thyroid carcinoma. JAMA Otolaryngol Head Neck Surg 2026;152(2):208–214; doi: 10.1001/jamaoto.2025.4653. PMID: 41411004.

SUMMARY OF THE STUDY

Patients from a single hospital were studied for 34 years. After the thyroid cancer treatments, patients whose thyroid cancer had spread to the lymph nodes who had a total thyroidectomy and radioactive iodine therapy were compared to patients who just had a surgical lobectomy and lymph node removal. Over 7-9 years, the overall survival at 5 years, the survival affected by the cancer, and 5-year chance of not having a thyroid cancer recurrence were compared.

The smaller group of 37 patients had a lobectomy with a lymph node dissection surgery with no radioactive iodine. The larger group of patients had a total thyroidectomy, lymph node dissection (with a similar number of lymph nodes removed as the smaller group), as well as radioactive iodine therapy. The two groups had similar overall survivals at 5 years at 96.9% in the smaller group and 96.8% in the larger group, similar survivals affected by the cancer at 5 years of 96.7% in the smaller group and 100% in the larger group, and a similar chance of not having a thyroid cancer recurrence at 5 years of 89.8% in the smaller group and 88.9% in the larger group. In fact, these result trends also held true when patients were analyzed at 10 years after treatment as well.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study suggests that patients who are at ATA intermediate-high risk and had a lobectomy and lymph nodes removed had similar 5-year survivals and 5-year chances of not having a thyroid cancer recurrence as those patients who had their whole thyroid gland removed, lymph nodes removed, and radioactive iodine therapy. These data suggest that some patients who have thyroid cancer that has spread to the lymph nodes can be treated less aggressive therapy. It is encouraging that these less aggressive treatments still have good outcomes for certain thyroid cancer patients. More studies are needed to confirm these results.

— Pinar Smith, 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/

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

ABBREVIATIONS & DEFINITIONS

Thyroid cancer: the most common type of thyroid cancer, includes papillary, follicular and oncocytic thyroid cancer

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 or lobectomy*.

Lymph node: bean-shaped organ that plays a role in removing what the body considers harmful, such as infections and cancer cells.

Cancer recurrence: this occurs when the cancer comes back after an initial treatment that was successful in destroying all detectable cancer at some point.

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 CANCER

Shared-decision-making discussions regarding surgery for low-risk thyroid cancer

BACKGROUND

Thyroid cancer is common and the most common type of thyroid cancer is papillary thyroid cancer. Fortunately, papillary thyroid cancer usually has very good outcomes and prognosis as we have very effective therapies. Because of this excellent prognosis, the treatment of thyroid cancer no longer involves a one-size-fits-all approach. For thyroid cancers that have a low-risk for recurrence and measure between 1 to 4 cm in size, treatment options include total thyroidectomy or thyroid lobectomy. Both options offer good long-term outcomes and have their own advantages. The decision about which type of surgery would be best requires a conversation between the patient and provider on the benefits and risks of both options.

In this study, researchers examine patient and provider experiences and perspectives on the decision-making process for patients undergoing surgery for low-risk thyroid cancer.

THE FULL ARTICLE TITLE

Yang W, et al. Understanding the factors that influence shared-decision making around surgical resection of low-risk thyroid cancers: a prospective qualitative study. Thyroid 2026;36(1):81–88; doi: 10.1177/10507256251408856. PMID: 41467962.

SUMMARY OF THE STUDY

For this study, interviews were performed with 19 patients, 6 thyroid surgeons and 2 thyroid cancer nurse specialists. The patients included in the study had a diagnosis of low-risk papillary or follicular thyroid cancer without adverse features and were not on thyroid hormone therapy.

Through the interviews several themes were identified and some of these themes are highlighted here. Patients reported that they were provided a significant amount of information about treatment options and many patients expressed the way in which the information was shared was not sufficient for decision making. Some reported a lack of interaction when provided with the information and some reported receiving information about the treatment options shortly after receiving a cancer diagnosis which affected their ability to process the information.

Patients and providers both reported that there were several factors that influence the decision-making process. For many patients minimizing the number and extent of surgery was a priority. The second factor was to preserve normal thyroid and avoid long-term need for thyroid hormone replacement. The third factor that influenced treatment decision was the patient's willingness to accept the risk of cancer recurrence.

Most patients in the study felt they decided on the final treatment plan themselves and that their provider's recommendation was an important part of the decision process. Among the providers in the study, half of them supported patients making their own decision and the other half felt the recommendation by a multidisciplinary team should be given importance.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The study highlights the challenges associated with shared-decision making for the surgical treatment of low-risk thyroid cancer and the importance of recognizing how patients are able to digest the vast amount of information provided and feel included in the discussion. It also outlines some of the important considerations that play a factor in a patient's decision to pursue thyroidectomy or thyroid lobectomy.

— Poorani Goundan, MD

THYROID CANCER, continued

ATA THYROID BROCHURE LINKS

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

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 or thyroid lobectomy*

Papillary thyroid cancer: the most common type of differentiated 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).

Follicular thyroid cancer: the second most common type of differentiated thyroid cancer.

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THYROID CANCER

Is more always better? Surgical extent and radioactive iodine treatment in papillary thyroid cancer.

BACKGROUND

Thyroid cancer is common and the most common type of thyroid cancer is papillary thyroid cancer. Fortunately, papillary thyroid cancer usually has very good outcomes and prognosis as we have very effective therapies. Initial treatment is usually surgery, and this can be either removal of the lobe that contains cancer (lobectomy) or removal of the entire thyroid gland (total thyroidectomy). For more advanced cancers, surgery can be followed with radioactive iodine therapy, which works as a magic bullet to seek out and destroy any remaining thyroid cancer cells. Years ago, most thyroid cancer patients would get a total thyroidectomy and radioactive iodine therapy. We now know that most patients do not need such aggressive therapy. The 2025 American Thyroid Association guidelines for treatment of thyroid cancer took this into account and now recommends separating patients into low-, low-intermediate-, intermediate-high-, and high-risk groups based on what the cancer looks like after surgery and on the risk of the cancer coming back after the initial surgery. Patients in the low and low-intermediate groups usually have surgery only, and most will end up with a lobectomy only. Total thyroidectomy and radioactive iodine therapy is recommended as the risk of thyroid cancer recurrence increases.

Specifically, total thyroidectomy and radioactive iodine therapy is the recommendation for intermediate-high risk patients. However, this is a rather diverse group of patients and maybe all do not need this aggressive treatment. In this study, researchers examine the outcomes for intermediate-high risk patients treated with 3 different approaches: (1) lobectomy with lymph node dissection, (2) total thyroidectomy with lymph node dissection and (3) total thyroidectomy with lymph node dissection followed by radioactive iodine therapy.

THE FULL ARTICLE TITLE

Fujiwara T, et al. Are total thyroidectomy and adjuvant radioactive iodine treatment required in all patients with N1b intermediate-high risk papillary thyroid carcinoma? Thyroid 2026;36(1):36–45

SUMMARY OF THE STUDY

This study included patients with intermediate-high risk thyroid cancer who underwent thyroidectomy with lymph node dissection between 2010 and 2022. Three management approaches were compared: (1) lobectomy with lymph node dissection (109 patients), (2) total thyroidectomy with lymph node dissection (170 radioactive iodine therapy), and (3) total thyroidectomy with lymph node dissection followed by radioactive iodine therapy (279 patients). They looked at patient survival with no evidence of thyroid cancer recurrence as well as how many patients died of their cancer.

The group included a total of 593 patients (60.6% female; average age, 58 years) who had an average follow-up duration of 71.5 months. The average cancer size was 18 mm, and several foci of cancer were present in 242 patients (43.4%), with predominant classical papillary thyroid cancer. Spread of the cancer outside of the thyroid was observed in 226 patients (40.5%) and spread of the cancer outside of lymph nodes was seen in 144 patients (24.3%). Thyroid cancer recurrence was reported in 75 patients (12.6%).

Patients who underwent total thyroidectomy followed by radioactive iodine therapy were more likely to have thyroid cancer recurrence, although this was not significant. Patients with larger cancers and larger lymph nodes with cancer were associated with shorter time to thyroid cancer recurrence. Conversely, the extent of thyroid surgery and use of radioactive iodine therapy were not independent predictors of recurrence.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study suggests that radioactive iodine therapy may

THYROID CANCER, continued

decrease the frequency of thyroid cancer recurrence in selected patients with high-risk features and extensive spread of the cancer to the lymph nodes. However, the use of radioactive iodine therapy likely should not be routine across all intermediate-high-risk patients with papillary thyroid cancer. In those with smaller cancers with less spread to the lymph nodes, lobectomy or total thyroidectomy with lymph node dissection alone could be appropriate. As in all cases, personalized risk stratification and management is necessary to provide the best treatment for thyroid cancer patients.

— Alan Farwell, MD

ATA THYROID BROCHURE LINKS

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

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

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

ABBREVIATIONS & DEFINITIONS

Papillary thyroid cancer: the most common type of differentiated 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).

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*).

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 or lobectomy*.

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THYROID CANCER

Circulating cancer DNA in Medullary Thyroid Cancer

BACKGROUND

Medullary thyroid cancer (MTC) is an uncommon form of thyroid cancer. MTC is associated with mutations in the *RET* proto-oncogene, which is a cancer-associated gene that is normally expressed in cells. It is unclear whether mutations in the *RET* proto-oncogene cause cancer or are just associated with cancer cells. Mutations in the *RET* proto-oncogene are seen in the inherited type of MTC. However, about 75% of the cases of MTC are sporadic, meaning they are not inherited. Mutations in the *RET* proto-oncogene can be found in about half of the sporadic cases and certain mutations are more frequent in more aggressive forms of MTC. Identification of these mutations can help guide treatment by using drugs that target these specific genetic changes in patients with MTC.

Circulating cancer DNA (cDNA) are pieces of DNA shed by cancer cells in the body and found in the blood. Newly developed blood tests, often called liquid biopsy, can now detect these pieces of cDNA, and help make a diagnosis of cancer, inform if the cancer is coming back and guide treatment. It is a way to examine cancer without getting a tissue biopsy. This study examined whether testing for cDNA can be a useful tool in managing patients with MTC, particularly in patients with large amounts of cancer still in the body.

THE FULL ARTICLE TITLE

Ciampi R et al. Liquid biopsy-based *RET* mutation profiling to guide *RET* inhibitor treatment in sporadic medullary thyroid carcinoma may be useful in cases with high tumor burden and progressive disease. Thyroid. 2026;36(2):188–194; doi: 10.1177/10507256261416836. PMID: 41578741.

SUMMARY OF THE STUDY

The authors tested the blood of 36 patients with sporadic MTC who received medical care in Pisa, Italy. All the patients had *RET* mutations identified by testing the cancer tissue. They divided the patients in three groups: patients with progressive disease (PD), patients with stable disease (SD) who are receiving treatment and patients with SD being monitored not on treatment. *RET* mutations by cDNA were identified in 44 % of the patients (16). All the 16 patients with a *RET* mutation detected in ctDNA were in the PD group. Patients with detectable mutations by cDNA were more likely to have spread of the cancer outside of the neck, more progression of the cancer and higher levels of MTC markers (calcitonin and CEA). Patients in the SD group were negative for ctDNA testing, whether on treatment or not.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Testing cDNA in patients with MTC helps recognize those patients who are more likely to have large amount of cancer cells in the body, and whose disease is more likely to progress. This offers a non-invasive way to evaluate patients with MTC and help make decisions about when and how to treat. Because only about half of the patients with sporadic MTC have detectable *RET* mutations by cDNA, tissue testing for the *RET* mutation is still the initial approach. However, cDNA appears most useful in patients who do not have cancer tissue available for testing and whose cancer is growing. We need more studies to better understand the advantages and disadvantages of this new test.

— Susana Ebner MD

ATA THYROID BROCHURE LINKS

Thyroid Cancer (Medullary): https://www.thyroid.org/medullary-thyroid-cancer/

THYROID CANCER, continued

ABBREVIATIONS & DEFINITIONS

Medullary thyroid cancer: a relatively rare type of thyroid cancer that often runs in families. Medullary cancer arises from the C-cells in the thyroid.

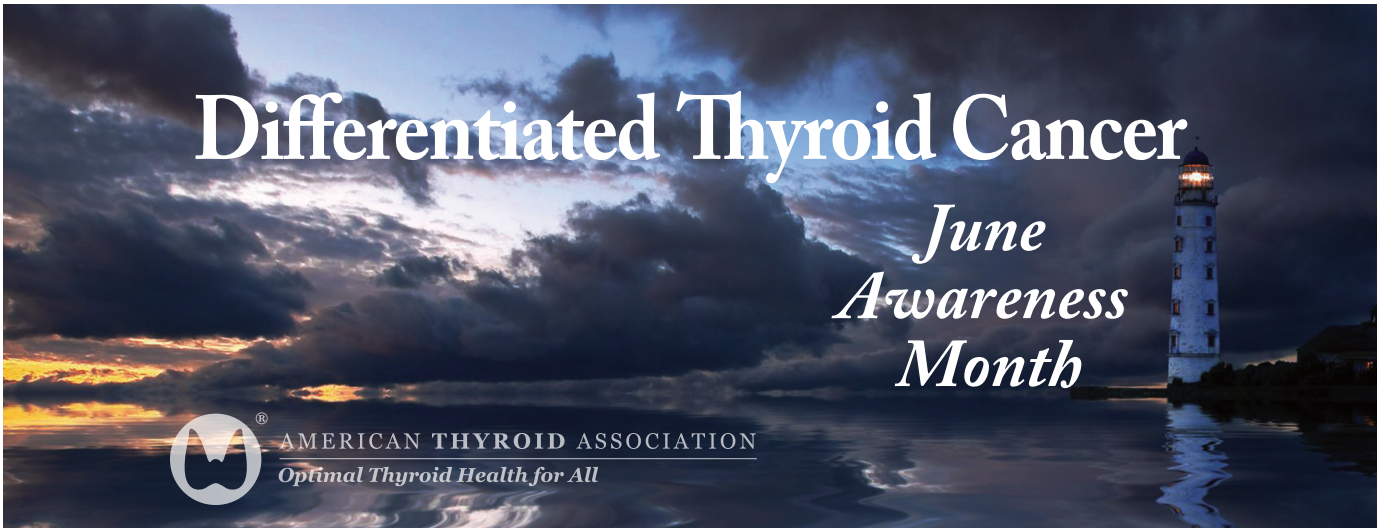
Genes: a molecular unit of heredity of a living organism. Living beings depend on genes, as they code for all proteins and RNA chains that have functions in a cell. Genes hold the information to build and maintain an organism's cells and pass genetic traits to offspring.

Cancer-associated genes: these are genes that are normally expressed in cells. Cancer cells frequently have mutations in these genes. It is unclear whether mutations in these genes cause the cancer or are just associated with the cancer cells. The cancer-associated genes important in thyroid cancer are BRAF, RET/PTC, TERT and RAS.

Mutation: a permanent change in one of the genes.

Calcitonin: a hormone that is secreted by cells in the thyroid (C-cells) that has a minor effect on blood calcium levels. Calcitonin levels are increased in patients with medullary thyroid cancer.

Carcinoembryonic antigen (CEA): a protein that can be made by certain cancers such as colorectal cancer and medullary thyroid cancer. CEA may be measured with a blood test.



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HYPOTHYROIDISM

Subclinical hypothyroidism and mortality: revisiting an ongoing question.

BACKGROUND

Hypothyroidism is common. Treatment of overt hypothyroidism, where the TSH is increased and the FT4 is decreased, is clear. Treatment of subclinical hypothyroidism, where the TSH is increased but the FT4 is normal, is less clear. Overt hypothyroidism is associated with heart problems and a greater risk of heart disease and death. Treating patients with overt hypothyroidism will decrease those risks. However, for those with subclinical hypothyroidism, results have been mixed based on thyroid level, level of TSH increase, and patient age. Prior studies of more than 55,000 people found that people with subclinical hypothyroidism and very high TSH levels had a greater risk of heart disease and death. Other studies also found more heart disease in younger adults with subclinical hypothyroidism. However, some studies in older adults did not show that treatment lowered the risk of death.

Some speculate that treating subclinical hypothyroidism may help lower heart risks in younger adults between 40 and 70 years old. In this study, Ran and his team looked at how hypothyroidism affects the risk of death using a very large group of adults in China, including younger adults.

THE FULL ARTICLE TITLE

Ran X, et al. Hypothyroidism and risks of all-cause and cardiovascular mortality: a retrospective cohort study of 70,276 Chinese adults. Thyroid 2025;35(12):1403–1411; doi: 10.1177/10507256251393523. PMID: 41213612.

SUMMARY OF THE STUDY

Data was collected from a large-volume hospital in China from 2017-2022, of patients aged between 25 to 84 years old who underwent routine health examinations. From the 116,267 patients, 70,276 were included, and from those 66,987 (95.3%) had normal thyroid function, 2436 (3.5%) had subclinical hypothyroidism, and 853 (1.2%) had overt hypothyroidism, with an average follow-up of 5.1 years. Those patients with subclinical hypothyroidism and overt hypothyroidism were older (45 and 48.7 vs. 42 years) and more often female (62% and 66.7% vs. 46.6%) when compared to participants with normal thyroid levels. Other noticeable differences included higher rates of hypertension, diabetes, and dyslipidemia.

Data showed 329 deaths in patients with normal thyroid levels, 16 in patients with subclinical hypothyroidism and 14 in patients with subclinical hypothyroidism. From those deaths, overt hypothyroidism was associated with increased all-cause mortality risk and increased cardiovascular risk. It is important to note that all-cause mortality in those with overt hypothyroidism was higher among participants with diabetes but not among those without diabetes.

On the other hand, patients with subclinical hypothyroidism did not show an increase in mortality risk, but when adjusted for age, those patients <50 years of age had higher all-cause mortality, but the sample size was not reported, and some limitations were noted.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The study confirmed prior studies that reported having overt hypothyroidism is linked to a higher risk of heart problems and dying, while subclinical hypothyroidism was only associated with a higher risk of mortality for those under 50 years old. However, there were several limitations to the study, and the authors recommended caution in applying these to clinical practice. Overall, more research needs to be conducted in this field before clear recommendations can be applied.

— Joanna Miragaya, MD

HYPOTHYROIDISM, continued

ATA THYROID BROCHURE LINKS

Thyroid Function Tests: https://www.thyroid.org/thyroid-function-tests/

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

ABBREVIATIONS & DEFINITIONS

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

Subclinical Hypothyroidism: a mild form of hypothyroidism where the only abnormal hormone level is an increased TSH. There is controversy as to whether this should be treated or not.

Overt Hypothyroidism: clear hypothyroidism an increased TSH and a decreased T4 level. All patients with overt hypothyroidism are usually treated with thyroid hormone pills.

TSH: thyroid stimulating hormone — produced by the pituitary gland that regulates thyroid function; also the best screening test to determine if the thyroid is functioning normally.

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THYROID IN PREGNANCY

Low FT4 and insulin needs in GDM: Causation, correlation, or confounding?

BACKGROUND

Thyroid hormone plays a major role in the development of the baby during pregnancy. Thyroid disorders have been associated with gestational diabetes mellitus (GDM), which is the development of diabetes during pregnancy in women who did not have diabetes before getting pregnant. The cause is thought to be related to increased insulin resistance and inflammatory pathways. Although several factors predict the need for insulin therapy in GDM, data on the impact of thyroid disorders on insulin need in GDM are limited. This study aimed to compare thyroid hormone levels between women with GDM managed with diet and lifestyle measures alone versus those requiring insulin and to determine which variables were associated with the need for insulin.

THE FULL ARTICLE TITLE

Jelloul E, et al. Low FT4 levels in early pregnancy are associated with higher insulin therapy need in women with gestational diabetes mellitus. Eur Thyroid J 2026;15(1)

SUMMARY OF THE STUDY

This study was conducted at CHU Saint Pierre, Brussels, Belgium, from January 2013 to December 2014. Included were women with single pregnancies who underwent oral glucose-tolerance test (OGTT) screening at 24 to 28 weeks of pregnancy. Excluded were patients with preexisting diabetes, those who had conceived through in vitro fertilization, and those with multiple pregnancies. Of 328 women diagnosed with GDM, 274 (83.5%) were treated with diet and lifestyle measures alone and 54 (16.5%) required insulin therapy. Thyroid function (TSH, FT4, TPOAb) was measured at an average of 13 weeks' of pregnancy using center- and trimester-specific reference ranges.

The insulin therapy group had a significantly higher average BMI (28 vs. 26), higher frequency of obesity (40.7% vs. 24.8%) and fewer previous pregnancies. Prior GDM was more frequent in the insulin treated group (14.8% vs. 6.5%). TSH, TPOAb and subclinical hypothyroidism were similar between groups. Only lower FT4 levels in the group with normal BMI were independently associated with the need for insulin therapy. TSH, subclinical hypothyroidism, thyroid autoimmunity, and levothyroxine treatment (initiated before or after screening) were not associated with the need for insulin.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study shows that women with lower FT4 levels, fewer prior pregnancies, and a history of GDM had an increased risk for the need for insulin therapy in addition to dietary and lifestyle measures for blood sugar management during pregnancy. The association between FT4 and insulin therapy was independent of thyroid autoimmunity and subclinical hypothyroidism and was most apparent in women with a normal BMI. Further studies are needed to confirm these findings and to try to better understand underlying mechanisms.

— Alan Farwell, MD

ATA THYROID BROCHURE LINKS

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

Thyroid Function Tests: https://www.thyroid.org/thyroid-function-tests/

THYROID IN PREGNANCY, continued

ABBREVIATIONS & DEFINITIONS

Gestational Diabetes Mellitus (GDM): the development of diabetes during pregnancy in women who did not have diabetes before getting pregnant.

Thyroxine (T4): the major hormone produced by the thyroid gland. T4 gets converted to the active hormone T3 in various tissues in the body.

TSH: thyroid stimulating hormone — produced by the pituitary gland that regulates thyroid function; also the best screening test to determine if the thyroid is functioning normally.

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.

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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.

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Graves' Disease & Thyroid Foundation

ThyCa: Thyroid Cancer Survivors' Association, Inc.
www.thyca.org

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checkyourneck.com

MCT8 - AHDS Foundation

BITE ME CANCER!

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thyroid@thyroid.org

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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
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Thyroid Federation International
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FOUNDED 2005

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