CLINICAL THYROIDOLOGY FOR PATIENTS

AMERICAN THYROID ASSOCIATION
FOUNDED 1923

VOLUME 3 • ISSUE 2 • FEBRUARY 2010

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A publication of the American Thyroid Association

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EDITOR'S COMMENTS

Welcome to *Clinical Thyroidology for Patients* and Happy New Year! I realize that I am a month late; however this month's edition is playing catch-up by giving you a double issue. With this issue, we will be on a schedule that will allow us to follow the physician-oriented *Clinical Thyroidology* publication within 2–3 weeks. This means that you, the patients, will be getting the latest information on thyroid research and treatment almost as soon as your physicians. We will continue to summarize the top articles from the recent medical literature that cover the broad spectrum of thyroid disorders.

The Calendar of Events highlights educational forums and support groups that are organized by members of the Alliance for Thyroid Patient Education. The Alliance member groups consist of: the *American Thyroid Association*, the *Graves' Disease Foundation*, the *Light of Life Foundation* and *ThyCa: Thyroid Cancer Survivors Association*. In this issue, we are highlighting the Graves' Disease Foundation as they report on the success of their annual meeting.

In this issue, studies ask the following questions:

- Is the new drug Motesanib effective in patients with medullary thyroid cancer?
- What is the link between the thyroid and heart disease?
- What are the risks of thyroid surgery in patients over the age of 80 years?
- What is the best way to prepare low risk thyroid cancer patients for RAI therapy?
- What is the best surgery for patients with familial medullary thyroid cancer?
- What are the features of papillary thyroid cancer that arises in a thyroglossal duct cyst?
- Does Lithium treatment increase the success rate of RAI in patients with Graves' disease?
- What is the response of children with Graves' disease to RAI treatment?
- Is the new NCI classification system helpful in interpreting thyroid biopsy results?
- Should elderly patients with thyroid cancer be treated differently than younger patients?

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

HOW TO NAVIGATE THIS DOCUMENT: The Table of Contents and the Bookmarks are linked to the articles. To navigate, move your cursor over the article title you wish to see (either in the Contents oJr in the Bookmarks panel) and the hand will show a pointing finger, indicating a link. Left-click the title and the article will instantly appear on your screen. To return to the Contents, move the cursor to the bottom of the page and left-click Back to Table of Contents which appears on every page. If you would like more information about using Bookmarks please see the help feature on the menu bar of Acrobat Reader.

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THYROID CANCER

Motesanib Shows Promise as a New Treatment for Widespread Medullary Thyroid Cancer

WHAT IS THE STUDY ABOUT?

Medullary cancer is a rare form of thyroid cancer, accounting for <10% of all thyroid cancers. Unlike the more common papillary and follicular thyroid cancer, medullary thyroid cancer does not respond to radioactive iodine, so the main treatment option is surgery. When medullary thyroid cancer has spread throughout the body (becomes metastatic), there has been little to offer these unfortunate patients as there has been no effective chemotherapy drugs. Recent studies have identified vascular endothelial growth factor receptor (VEGFR) as a target for cancer therapy. VEGFRs are a family of proteins (called tyrosine kinase) that sit on the surface of cells and trigger chemical signals to grow new blood vessels and make existing blood vessels bigger. Drugs that block VEGFRs cause blood vessels to shrink and kills off cancer cells that are supplied by these blood vessels. Motesanib blocks VEGFRs and preliminary reports have shown this drug to be effective in patients with metastatic medullary thyroid cancer. This study reports the results of a Phase II clinical trial of Motesanib in patients with metastatic medullary thyroid cancer.

THE FULL ARTICLE TITLE:

Schlumberger et al. Phase II Study of Safety and Efficacy of Motesanib in Patients with Progressive or Symptomatic, Advanced or Metastatic Medullary Thyroid Cancer. J Clin Oncol 2009; 27:3794-3801.

WHAT WAS THE AIM OF THE STUDY?

The objective of the study was to test whether an experimental new treatment, motesanib, was an effective treatment for metastatic medullary thyroid cancer.

WHO WAS STUDIED?

The study group included 91 patients from around the world with advanced medullary thyroid cancer. These patients either had evidence of cancer progression within the 6 months prior to treatment or symptoms caused by medullary thyroid cancer.

HOW WAS THE STUDY DONE?

The patients took Motesanib (125 mg) by mouth once daily for 48 weeks unless they had worsening of their cancer or severe side effects. Detailed imaging studies and cancer symptoms were assessed every 8 weeks, or earlier, if there were signs of cancer progression. Blood tests for markers of medullary thyroid cancer (calcitonin and CEA) were measured every 4 weeks.

WHAT WERE THE RESULTS OF THE STUDY?

Tumor response was assessed using the Response Evaluation Criteria in Solid tumor (RECIST). A total of 54 (59%) patients stopped Motesanib prior to 48 weeks: 30 had progression of medullary thyroid cancer, 13 had side effects, 3 died and 8 stopped for other reasons. No patients were cured over the course of the study. In 2 patients (2%), the medullary thyroid cancer responded with a significant decrease in size. A smaller decrease in the size of the cancer was seen in 69 patients (76%). 83% of patients had a decrease in the level of the medullary cancer marker, calcitonin, while 75% had a decrease in the level of CEA. 74 patients (81%) did not improve or worsen while they were on treatment. The average cancer progression-free period was 48 weeks and overall survival at 12 months was 75%. Twenty-four patients died during the study period. An extension study was created for 34 patients who completed the 48-week therapy protocol.

The most common side effects thought to be related to Motesanib were diarrhea (41% of patients), feeling tired (41%), hypothyroidism (29%), elevated blood pressure (27%) and decreased eating (27%). Eight patients experienced gallbladder problems, including gallbladder infections, gallstones and gallbladder enlargement.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

A similar experimental drug that blocks VEGFR showed an improvement of medullary thyroid cancer in 20% of patients and stable cancer in 30%. Yet another similar experimental drug showed stable disease in 87% of patients. The studies suggest new medicines that interfere with the growth of new blood vessels which feed cancers by blocking VEGFR may be useful for preventing spread of medullary thyroid cancer.

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THYROID CANCER, continued

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Motesanib was generally well tolerated by patients with advanced medullary thyroid cancer and resulted in shrinkage of the cancer in rare patients (2%). For the majority of the patients (81%), Motesanib caused the cancer to stop growing for a period of time. Further testing may show that treatments blocking blood vessel growth may prove helpful for treating medullary thyroid cancer.

— Ruth Belin, MD

ATA THYROID BROCHURE LINKS

Thyroid cancer: http://thyroid.org/patients/patient_brochures/cancer_of_thyroid.html

ABBREVIATIONS & DEFINITIONS

Clinical trials — when a new drug is developed, it must undergo an extensive series of steps, called phases, to prove that it is more effective in patients than the drugs that are currently available to treat the condition. A Phase I trial tests a new drug or treatment in a small group of people for the first time to evaluate its safety, determine a safe dosage range and identify side effects. A Phase II trial gives the drug to a larger group of people to see if it is effective and to further evaluate its safety. A Phase III trial gives the drug to large groups of people to confirm its effectiveness, monitor side effects, compare it to commonly used treatments and collect information that will allow the drug or treatment to be used safely.

Medullary thyroid cancer — a relatively rare type of thyroid cancer that also may be inherited. Medullary cancer arises from the C-cells in the thyroid.

RECIST: Response Evaluation Criteria in Solid Tumors — this is a set of published rules that define when cancer patients improve ("respond"), stay the same ("stable") or worsen ("progression") during treatments.

Motesanib — an anticancer drug that has been shown to be effective in thyroid cancer treatment.

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.

Vascular endothelial growth factor receptors (VEGFR) — family of proteins (called tyrosine kinase) that sit on the surface of cells and, in response to other proteins (VEGF), trigger chemical signals to grow new blood vessels and make existing blood vessels bigger. Cancers cannot grow beyond a limited size without blood supply; cancers with working VEGF and VEGFRs are able to grow and spread.

THYROID AND THE HEART

Hypothyroidism Is Not Linked with a Significantly Increased Risk for Coronary Heart Disease

WHAT IS THE STUDY ABOUT?

Hypothyroidism, or an underactive thyroid, has been associated with cardiovascular risk factors that may lead to coronary heart disease (CHD). This is especially true with cholesterol levels, which are increased in hypothyroidism and then decrease with thyroid hormone treatment. Subclinical hypothyroidism occurs when an increased TSH level is the only abnormality and the thyroid hormone levels are normal. The association with subclinical hypothyroidism and significant changes in cholesterol levels is unclear. The aim of this study was to determine the association between subclinical hypothyroidism, cardiovascular risk factors and the risk for CHD and mortality.

THE FULL ARTICLE TITLE:

Boekholdt et al. Initial thyroid status and cardiovascular risk factors: The EPIC-Norfolk prospective population study. Clin Endocrinol (Oxf) 2009 doi: 10.1111/j.1365-2265.2009.

WHAT WAS THE AIM OF THE STUDY?

The aim of this study was to determine the association between hypothyroidism, cardiovascular risk factors and the risk for CHD and mortality.

WHO WAS STUDIED?

The European Prospective Investigation into Cancer and Nutrition (EPIC)-Norfolk study is a population-based study of 25,633 men and women, 45 through 79 years of age residing in Norfolk, United Kingdom. Participants completed a baseline health and lifestyle questionnaire and nonfasting blood cholesterol and thyroid tests (FT_4 and TSH) were obtained.

HOW WAS THE STUDY DONE?

The records of the participants were reviewed. Subclinical hypothyroidism was defined as a TSH >4.0 µIU/ml with a FT_4 in the normal range. Hypothyroidism was defined as a TSH >4.0 µIU/ml with a low FT_4. Participants with CHD were identified during follow-up if they had a hospital admission and died of CHD or had this diagnosis as an underlying cause of death.

WHAT WERE THE RESULTS OF THE STUDY?

Serum TSH and FT_4 was measured in 13,076 participants and complete data were available for 11,554 participants, 5206 men (45%) and 6348 women (55%). Subclinical hypothyroidism was present in 800 persons, affecting 5% of men (238) and 9% of women (562). Undiagnosed hypothyroidism was found in only 47 men (1%) and 158 women (2.5%).

Men with subclinical hypothyroidism had similar cholesterol levels as men with normal thyroid function (euthyroid). Those with overt hypothyroidism had higher LDL-C levels than the euthyroid group. Women with subclinical hypothyroidism and overt hypothyroidism had higher levels of both total cholesterol and LDL-C levels than did euthyroid women. However, the incidence of cardiac disease in men and women with either subclinical hypothyroidism or overt hypothyroidism was no different than euthyroid individuals.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

Several studies have shown that cholesterol levels are increased with individuals with both subclinical and overt hypothyroidism. Other studies have shown that treatment with thyroid hormone lowers cholesterol levels in patients with subclinical hypothyroidism. As seen in the January 2010 issue of *Clinical Thyroidology for Patients*, Adrees et al also showed that treatment with thyroid hormone improved cardiovascular risk factors in patients with subclinical hypothyroidism (Woodmansee W "Elevated cardiovascular risk factors in women with subclinical hypothyroidism are decreased by treatment with levothyroxine." Clinical Thyroidology for Patients [serial online]. 2010;3(1):3-4. Available at: http://thyroid.org/patients/ct/volume3/issue1/ct_patients_v31_3_4.html). Finally, other studies also have shown no increased incidence of cardiac disease in patients with subclinical hypothyroidism.

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THYROID AND THE HEART, continued

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Although there is an association between thyroid hormone levels and cardiovascular risk factors, in this study, hypothyroidism is not linked with a significantly increased risk for coronary heart disease.

— Alan Farwell, MD

ATA THYROID BROCHURE LINKS

Hypothyroidism: http://thyroid.org/patients/patient_brochures/hypothyroidism.html

Hyperthyroidism: http://thyroid.org/patients/patient_brochures/hyperthyroidism.html

ABBREVIATIONS & DEFINITIONS

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

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.

Euthyroid — a condition where the thyroid gland as working normally and producing normal levels of thyroid hormone.

Atherosclerosis — "hardening of the arteries", a condition wherein fatty material (cholesterol, lipids) collects along the inner walls of blood vessels (arteries). Over time, this material hardens (forms plaques) and can block blood flow through the arteries.

LDL-C — low density lipoprotein cholesterol, the type of cholesterol that has been associated with atherosclerosis and heart disease.

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THYROID SURGERY

Complications of Thyroid Surgery in Octogenarians Are More Likely Caused by Underlying Illnesses than by Age Alone

WHAT IS THE STUDY ABOUT?

Thyroid nodules and thyroid cancer are the main reason to undergo surgery to remove all or part of the thyroid. Both of these conditions are common in older patients. However, older patients frequently have other chronic diseases as well, which makes thyroid surgery more difficult. This study examined the surgical complications that can occur in patients that undergo thyroid surgery. The aim of this study was to determine whether people over age 80 have higher rates of complications from surgery than other age groups.

FULL ARTICLE TITLE:

Mekel et al. Thyroid surgery in octogenarians is associated with higher complication rates. Surgery 2009;146:913-21.

WHAT WAS THE AIM OF THE STUDY?

The aim of this study was to determine whether people over age 80 have higher rates of complications from surgery than other age groups.

WHO WAS STUDIED?

The initial study group included 3,568 patients who had thyroid surgery at the Massachusetts General Hospital. A total of 90 patients in this group were 80 years of age or older. Another 242 patients from age 18 through 79 years were randomly selected from the group. These latter two groups were examined in this study.

HOW WAS THE STUDY DONE?

The patient's records of the two groups were reviewed. The primary outcomes examined were complications that occurred within 30 days of surgery. Thyroid-specific complications such as hypocalcemia (low calcium levels) and vocal-cord problems were based on the whether the patient had to be re-admitted to the hospital.

WHAT WERE THE RESULTS OF THE STUDY?

There were more complications in the group >80 than in the younger group. They also had a higher risk of surgery and a longer hospital stay than the younger group. However, age alone was not an independent risk factor in predicting complications after thyroid surgery. Men had more complications with thyroid surgery than women. Also, people who have underlying illnesses (co-morbidities) have more post-operative complications.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

One study found that you can predict the outcome of surgery from risk factors present before the operation. Another study found that among the older patients, the risk for post-operative complications was higher than younger patients. However, the study found that quality of life and survival rate following the diagnosis of thyroid cancer were increased in the elderly patients who had thyroid surgery.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study is important because it shows that underlying illnesses and operative risk, not age alone, are important to evaluate in the elderly population when deciding to pursue thyroid surgery.

— Heather Hofflich, MD

ATA THYROID BROCHURE LINKS

Thyroid Surgery: http://thyroid.org/patients/patient_brochures/surgery.html

Thyroid Disease in the Older Patient: http://www.thyroid.org/patients/patient_brochures/older_patient.html

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.

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THYROID CANCER

In Patients with Low-Risk Thyroid Cancer, Radioactive Iodine Therapy after Thyroid Hormone Withdrawal or rhTSH Stimulation Is Equally Effective

WHAT IS THE STUDY ABOUT?

After surgery for thyroid cancer, patients frequently undergo radioactive iodine (I-131) treatment to destroy any normal and /or cancerous thyroid tissue that may be left in the neck. In order for the radioactive iodine to be effective, the patient's TSH levels need to be increased to stimulate the thyroid cells to take up the RAI and be destroyed. There are two ways to increase TSH: 1) withdraw the patient from thyroid hormone (THW), making the patient hypothyroid for a short period of time or 2) use recombinant human TSH (rhTSH) to allow patients to stay on their thyroid hormone and avoid the short term hypothyroidism. The present study compared rates of successful radioactive iodine treatment in patients prepared by THW as compared to those prepared by administration of rhTSH.

THE FULL ARTICLE TITLE:

Elisei et al. Follow-up of low-risk differentiated thyroid cancer patients who underwent radioiodine ablation of postsurgical thyroid remnants after either recombinant human thyrotropin or thyroid hormone withdrawal. J Clin Endocrinol Metab 2009:94(11):4171-9.

WHAT WAS THE AIM OF THE STUDY?

The aim of this study was to examine the rate of successful radioactive iodine treatment in patients prepared by THW as compared to those prepared by administration of rhTSH.

WHO WAS STUDIED?

The study group originally included 63 patients. Of these patients, 61 had papillary thyroid cancer and 2 had follicular thyroid cancer. In the current study, 48 patients of the original group were studied.

HOW WAS THE STUDY DONE?

After surgery, patients were randomly assigned to either THW or rhTSH to prepare for radioactive iodine treatment with a standard dose of 100 mCi of I-131. Patients were initially examined 8 months later with a whole body scan. These results were previously published in 2006. The patients were then re-examined 3 to 4 years later with a whole body scan to evaluate the success of the radioactive iodine treatment.

WHAT WERE THE RESULTS OF THE STUDY?

In the THW group, 20 of 21 patients (95%) were successfully treated with radioactive iodine. In the rhTSH group, 26 of 27 patients (96%) were successfully treated with radioactive iodine.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

This study is a follow-up to a 2006 study by Pacini et al. which also showed a similar rate of successful radioactive iodine treatment in patients prepared by THW and those prepared with rhTSH. The Pacini study also showed that those patients prepared with rhTSH maintained a substantially better quality of life and received less radiation exposure to the blood than patients prepared by THW. Another study by Tuttle et al. in 2008 also showed a similar rate of successful ablation in patients prepared with rhTSH compared to those prepared with THW.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study confirms that both THW and rhTSH preparation result in comparable rates of successful treatment with RAI in patients with low-risk thyroid cancer. With rhTSH, patients can avoid the symptomatic hypothyroidism that occurs with THW.

— Frank Cranz, MD

ATA THYROID BROCHURE LINKS

Thyroid cancer: http://thyroid.org/patients/patient_brochures/cancer_of_thyroid.html

Radioactive Iodine Therapy: http://thyroid.org/patients/patient_brochures/radioactive.html

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THYROID CANCER, continued

ABBREVIATIONS & DEFINITIONS

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).

Recombinant human TSH (rhTSH) — human TSH that is produced in the laboratory and used to produce high levels of TSH in patients after an intramuscular injection. This is mainly used in thyroid cancer patients before treating with radioactive iodine or performing a whole body scan. The brand name for rhTSH is Thyrogen™.

Thyroid Hormone Withdrawal (THW) — this is used to produce high levels of TSH in patients by stopping thyroid hormone pills and causing short-term hypothyroidism. This is mainly used in thyroid cancer patients before treating with radioactive iodine or performing a whole body scan.

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

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THYROID CANCER

Aggressive Surgery in Certain Patients with Familial Medullary Thyroid Cancer Is Safe and Results in High Cure Rates

WHAT IS THE STUDY ABOUT?

Medullary thyroid cancer can be inherited, either as part of a genetic syndrome known multiple endocrine neoplasia 2A (MEN 2A) or by itself (familial medullary thyroid cancer). This cancer is caused by genetic mutations and can be diagnosed at a young age. Patients with a specific genetic mutation (codon 634) start with an increase in the number of thyroid C-cells (C-cell hyperplasia) which then progresses to medullary cancer. Genetic screening for this mutation can identify patients that have either no changes in the thyroid, only C-cell hyperplasia or very early medullary cancer. In these patients, surgery to remove the entire thyroid can prevent the development of a significant medullary cancer. This surgery is usually done before the age of 5 years. While removing the thyroid is clearly helpful, it is not clear if removing all lymph nodes from the central neck (behind the thyroid) even before they appear to be involved with cancer is beneficial for patients with this gene mutation. The aim of the present study was to determine the effect of removing all lymph nodes from the central neck (central neck dissection) at the time of thyroid surgery.

THE FULL ARTICLE TITLE:

Schellhaas et al. Prophylactic central neck dissection with total thyroidectomy in familial medullary thyroid cancer with codon 634 mutations is safe and results in high cure rates. Surgery 2009; 146: 906-912.

WHAT WAS THE AIM OF THE STUDY?

The aim of the present study was to determine the effect of removing all lymph nodes from the central neck at the time of thyroid surgery.

WHO WAS STUDIED?

Seventeen patients with codon 634 mutations who had a total thyroidectomy and central neck dissection between 1992 and 1999 were evaluated. Fourteen of these patients had MEN 2A and 3 familial medullary thyroid cancer. Their median age was 13 years (range 4 to 36). Median follow up was 147 months (range 90 to 181 months).

HOW WAS THE STUDY DONE?

The seventeen patients included in this study had their initial surgery performed at a single institution in Germany. The surgery included a total thyroidectomy with central neck dissection. None of the patients had any symptoms of their cancer at the time of surgery. The patients and their primary doctors were contacted via telephone or mail and asked about the course of their cancer, their blood calcitonin levels (a hormone marker of medullary cancer) and any other treatment that they had received because of their MTC or other MEN 2A related problems.

WHAT WERE THE RESULTS OF THE STUDY?

Three patients had C-cell hyperplasia, 12 patients had small cancers < 1 cm and 2 patients had cancers between 1-2 cm. Although an average of 10 lymph nodes were removed per patient, only 2 patients had evidence of spread of the cancer to the lymph nodes. Of these 2 patients, 1 had repeat surgery and is currently free of the cancer. The other patient still has increased calcitonin levels but no clinical evidence of the cancer. All of the other patients remained free of cancer during the study period (potential 94% cure rate). The preoperative calcitonin levels correlated with size of the cancers but not with the presence of spread to the lymph nodes.
Fifteen patients had a preoperative ultrasound and in 9 no abnormalities, were found, even though 6 of them had cancer and one had spread to the lymph nodes. The other 3 patients had C-cell hyperplasia. Six patients were found to have nodules and all of them were medullary cancer. The incidence of complications related to the surgery was low. Nine patients had no complications at all. One patient (5.9%) had permanent hypoparathyroidism which required calcium pills and 5 patients had hypoparathyroidism that resolved with follow up. One patient had temporary injury to the laryngeal nerve, but this resolved on follow up examination.

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THYROID CANCER, continued

HOW DOES THIS COMPARE WITH OTHER STUDIES?

Many studies had shown that early thyroidectomy in patients with certain genetic mutations can prevent the development of medullary thyroid cancer. One study suggested that total thyroidectomy is sufficient in patients without invasive cancers. However, because many young and asymptomatic patients already have lymph node involvement at the time of the initial "preventive" operation, many physcians favor a preventive central neck dissection in almost all patients with medullary cancer.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Medullary thyroid cancer can be prevented in patients with genetic mutations by performing early thyroidectomy. This study shows that in the hands of experienced surgeons, preventive central neck dissection at the time of initial thyroidectomy can be done safely in young children with minimal complications and results in high cure rates. However, because in this study there were few patients with spread to the lymph node , a general conclusion regarding the benefits of preventive central neck dissection could not be reached.

— M. Regina Castro, MD

ATA THYROID BROCHURE LINKS

Thyroid Cancer. http://thyroid.org/patients/patient_brochures/cancer_of_thyroid.html

Thyroid surgery. http://thyroid.org/patients/patient_brochures/surgery.html

ABBREVIATIONS & DEFINITIONS

Medullary thyroid cancer — a relatively rare type of thyroid cancer that also may be inherited.

Central neck compartment — the central portion of the neck between the hyoid bone above, and the sternum and collar bones below and laterally limited by the carotid arteries.

Prophylactic central neck dissection — Careful removal of all lymphoid tissue in the central compartment of the neck, even if no obvious tumor is apparent in these lymph nodes

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.

MEN 2A — Multiple endocrine neoplasia, type 2A. A hereditary syndrome in which medullary thyroid cancer is often seen in association with other endocrine tumors such as pheochromocytoma (a tumor of the adrenal glands) and hyperparathyroidism (elevated parathyroid hormone levels usually caused by tumors of the parathyroid glands).

C-cell hyperplasia — An abnormal growth of parafollicular (C-cells) cells that usually occurs before the development of familial forms of medullary thyroid cancer and is considered a pre-cancerous condition

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

Hypoparathyroidism — low calcium levels due to decreased secretion of parathyroid hormone (PTH) from the parathyroid glands next to the thyroid. This can occur as a result of damage to the glands during thyroid surgery and usually resolves. This may also occur as a result of autoimmune destruction of the glands, in which case it is usually permanent.

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THYROID CANCER

Risk of Metastasis from Papillary Thyroid Cancer Originating in Thyroglossal Duct Cysts

WHAT IS THE STUDY ABOUT?

During development, the thyroid gland initially forms in the mouth of the fetus and then descends to its final position in the mid to lower neck using a connection referred to as thyroglossal duct. After birth, the thyroglossal duct usually goes away, but it may persist in some people. This can lead to the formation of a thyroglossal duct cyst that causes a midline neck lump. These cysts can become inflamed leading to pain. The cysts also may contain thyroid tissue that did not descend with the rest of the thyroid gland. Very rarely, this thyroid tissue can develop into a cancer. This study examines the clinical features of these thyroglossal duct cyst cancers.

THE FULL ARTICLE TITLE:

Hartl et al. High rate of multifocality and occult lymph node metastases in papillary thyroid carcinoma arising in thyroglossal duct cysts. Ann Surg Oncol 2009;16:2595-601.

WHAT WAS THE AIM OF THE STUDY?

The aim of the study was to determine the clinical features of thyroglossal duct cyst cancers, including: 1) number and location of cancer sites at diagnosis, 2) presence of spread to lymph nodes at the time of diagnosis, and 3) progression of the cancer over time.

WHO WAS STUDIED?

The study group included a total of 18 patients (13 women and 5 men) seen at the Gustave Rouissy Institute in France between 1979 and 2008 that had papillary thyroid cancer arising from a thyroglossal duct cyst.

HOW WAS THE STUDY DONE?

The records of the patients in the study group were examined.

WHAT WERE THE RESULTS OF THE STUDY?

All patients had surgery to remove the thyroglossal duct cyst and most of them had a follow-up surgery to remove their thyroid gland and lymph nodes (83%). Some of the patients were subsequently treated with radioactive iodine therapy (67 % of them). In addition to cancer found in thyroglossal duct cyst, 56% of the patients had cancer in the thyroid gland as well. In addition, most patients had spread of the cancer to the lymph nodes in the neck (86%). Surprisingly, it was common for patients to have spread of the cancer to lymph nodes in the lateral neck and not in the central neck, resulting in what is referred to as a "skip" metastasis. Skip metastasis was noted in 40% in this study as compared to only 20% in usual cases of papillary thyroid cancer.

All patients were apparently cured of their cancer with no evidence of the cancer found after 11 years follow-up, regardless of extent of surgery or whether they received radioactive iodine or not.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

There are no other studies of this extent examining this rare cancer. However, looking at the more common papillary thyroid cancer originating within the thyroid, another study from the same institution in France found similar results after examining spread to the lymph nodes.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

It is common for papillary cancers arising in thyroglossal duct cyst to have cancer also in the thyroid gland and in lymph nodes in the neck. The authors suggest that papillary cancer arising from a thyroglossal duct cyst be managed the same way as if it started within the thyroid gland.

— Mona Sabra, MD

ATA THYROID BROCHURE LINKS

Thyroid cancer: http://thyroid.org/patients/patient_brochures/cancer_of_thyroid.html

ABBREVIATIONS & DEFINITIONS

Papillary thyroid cancer — the most common type of thyroid cancer.

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

Thyroglossal duct cyst — a lump found in the midline of the neck that was part of a structure (thyroglossal duct) that is formed in the development of the thyroid in the fetus.

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HYPERTHYROIDISM

Impact of Lithium on Efficacy of Radioactive Iodine Therapy for Graves' Disease

WHAT IS THE STUDY ABOUT?

Graves' disease is the most common type of hyperthyroidism. In the United States, ~85% of patients with Graves' disease eventually are treated with radioactive iodine (RAI) to destroy the overactive thyroid gland. Effective treatment with RAI usually means that the patient becomes hypothyroid, requiring long term thyroid hormone therapy. Much less common, a patient may not require any medication or the hyperthyroidism persists or returns. Lithium, a medication commonly used for the treatment of certain psychiatric disorders, may increase the effects of RAI on the thyroid when used short term during RAI treatment. This study is designed to see if a specific Lithium treatment plan for 12 days around the time of RAI therapy can improve the response of the Graves' disease compared to RAI without the Lithium treatment.

THE FULL ARTICLE TITLE:

Bogazzi et al. Impact of Lithium on Efficacy of Radioactive Iodine Therapy for Graves' Disease: A Cohort Study on Cure Rate, Time to Cure, and Frequency of Increased Serum Thyroxine After Antithyroid Drug Withdrawal. J Clin Endocrinology and Metabolism 95: 201-208 Jan, 2010.

WHAT WAS THE AIM OF THE STUDY?

The aim of the study is to see if a Lithium treatment plan with RAI will improve the response of the Graves' disease compared to RAI without the Lithium treatment.

WHO WAS STUDIED?

The study group included 651 patients with Graves' disease that were treated at the University of Pisa in Italy.

HOW WAS THE STUDY DONE?

All patients were initially treated with methimazole until thyroid function was normal. Lithium (900 mg per day) was started for 5 days before RAI then continued for 7 days after the RAI in 353 patients. A total of 298 patients were not given Lithium around the time of RAI. All patients were treated with anti-inflammatory steroids (prednisone), which is their usual treatment plan at this institution to reduce the risk of worsening of the eye problems that may be associated with Graves' Disease. All patients were treated with an equal amount of RAI based on the size of the thyroid and how active the gland was before therapy. Effective treatment was defined as development of hypothyroidism or stable thyroid levels in the normal range of medication for at least a year after therapy.

WHAT WERE THE RESULTS OF THE STUDY?

The time to stable thyroid function after RAI was 60 days in the Lithium-treated group and 90 days in the control group. Effective treatment was achieved in 93% of the Lithium-treated group as compared to 83% in the control group. Temporary worsening of the hyperthyroid symptoms was not common in either group.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

Some studies have shown a similar effective treatment rate between Lithium and non-Lithium treated patients with RAI while others have shown no advantage with Lithium. Previous studies have suggested that the effective rate with a single treatment is more related to the dose of the RAI. One difference in this study is the use of prednisone in all patients. The impact of the prednisone on the RAI treatment is unclear.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Treatment with Lithium may benefit those patients at greatest risk for side effects from hyperthyroidism (ie elderly, heart patients) but shortening the time to stable thyroid levels post RAI. Lithium therapy combined with a high dose of RAI may the fastest treatment of Graves' hyperthyroidism.

— Jerrold Stock, MD

ATA THYROID BROCHURE LINKS

Graves disease: http://thyroid.org/patients/patient_brochures/graves.html

Hyperthyroidism: http://thyroid.org/patients/patient_brochures/hyperthyroidism.html

Radioactive Iodine Therapy: http://thyroid.org/patients/patient_brochures/radioactive.html

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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.

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.

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).

Lithium — A medication that is often used to treat certain psychiatric diseases

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

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PEDIATRIC GRAVES' DISEASE

Factors Affecting Response to Radioactive Iodine Therapy in Children with Graves' Disease

WHAT IS THE STUDY ABOUT?

Graves' disease is the most common cause of hyperthyroidism in children and adolescents. Graves' disease is an autoimmune condition, meaning that it is caused by antibodies that attack the thyroid and turn it on. Graves' disease may be treated with antithyroid drugs (methimazole or propylthiouracil), radioactive iodine I-131 or surgery. In general, many endocrinologists are less likely to recommend the use of radioactive iodine in children than they are in adults with Graves' disease, possibly due to concerns for an increased risk of thyroid cancer or genetic damage. This study examined the response of Graves' disease in children to radioactive iodine therapy and identified the factors that affected the outcome of such therapy.

THE FULL ARTICLE TITLE:

McCormack et al. Radioactive iodine for hyperthyroidism in children and adolescents: referral rate and response to treatment. Clin Endocrinol (Oxf) 2009.

WHAT WAS THE AIM OF THE STUDY?

To determine the factors that affect the outcome of radioactive iodine therapy in children and adolescents with Graves' disease.

WHO WAS STUDIED?

Out of a group of 720 patients treated in the Pediatric Endocrine Unit or the Thyroid Unit of the Massachusetts General Hospital, a total of 48 patients were found with Graves' disease who received radioactive iodine treatment.
How was the study done?
The patients' charts were reviewed for treatment outcome, as well as a variety of factors that could affect the outcome of treatment.

WHAT WERE THE RESULTS OF THE STUDY?

The indication for radioactive iodine treatment was patient preference in half the group, intolerance to methimazole or propylthiouracil in 29%, poor control of the hyperthyroidism in 19% and indication unknown in 2%. Of the 48 patients treated with radioactive iodine, 35 (73%) were successfully treated while 13 (27%) had a poor response or required a second treatment with radioactive iodine. The factors that predicted a poor response were the use of antithyroid drugs prior to the radioactive iodine, poor control of hyperthyroidism, the presence of Graves' eye disease, and a delay in administering radioactive iodine for more than 12 months after the diagnosis of hyperthyroidism.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

A long-term study of children or adolescents treated with radioactive iodine for Graves' disease have not shown an increased risk of thyroid cancer or genetic damage, and therefore, this therapy is considered to be relatively safe. The major effect of radioactive iodine is hypothyroidism from destruction of the thyroid, which actually is a desired outcome. Studies in adults also have shown that prior treatment of patients with Graves' disease with antithyroid drugs is associated with an increased risk of treatment failure if the antithyroid drugs are given in the week before or the week after the administration of radioactive iodine.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Children and young adults may be safely treated with radioactive iodine for Graves' disease. However, the effectiveness of the therapy is reduced if the patient has received antithyroid drugs prior to the radioactive iodine , or if they have Graves' eye disease or hyperthyroidism that has been present for over a year before they receive the radioactive iodine .

— Glen Braunstein, MD

ATA THYROID BROCHURE LINKS

Graves disease: http://thyroid.org/patients/patient_brochures/graves.html

Hyperthyroidism: http://thyroid.org/patients/patient_brochures/hyperthyroidism.html

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PEDIATRIC GRAVES' DISEASE, 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.

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.

Propylthiouracil (PTU) — an antithyroid medication that blocks the thyroid from making thyroid hormone. Propylthiouracil is used to treat hyperthyroidism, especially in women during pregnancy.

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 NODULES

A New Classification System for Thyroid Fine Needle Aspiration Biopsy Results

WHAT IS THE STUDY ABOUT?

Thyroid nodules are very common, occurring in up to 50% of patients. Overall, thyroid cancer is present in ~8% of thyroid nodules. The best test to determine if a cancer is present in a thyroid nodule >1 cm in size is a thyroid fine needle aspiration biopsy (FNAB). However, the description of FNAB results is different across medical centers and pathologists. The National Cancer Institute (NCI) recently proposed a six category classification system to be used for reporting all thyroid FNAB results. The aim of this study was to determine how well these categories matched results obtained from surgical specimens.

THE FULL ARTICLE TITLE:

Theoharis et al. The Bethesda Thyroid fine-needle aspiration classification system: year 1 at an academic institution. Thyroid. 2009 19(11): 1215-23.

WHAT WAS THE AIM OF THE STUDY?

The aim of this study was to determine how well these categories matched results obtained from surgical specimens.

WHO WAS STUDIED?

These investigators applied the new NCI classification system to all reports of FNAB results at Yale-New Haven Hospital in 2008. A total of 3207 biopsies from 2468 patients were evaluated.

HOW WAS THE STUDY DONE?

All thyroid FNAB samples were reviewed and classified according to the NCI classification system. The NCI classification system includes the following six categories: 1) unsatisfactory, 2) benign/negative for malignancy, 3) indeterminate, 4) follicular neoplasm, 5) suspicious for malignancy and 6) positive for malignancy. A subset of patients subsequently underwent surgical resection of their thyroid/thyroid nodules and the final pathology of these specimens was compared to the FNAB result obtained prior surgery.

WHAT WERE THE RESULTS OF THE STUDY?

Of the 3207 nodules from 2468 patients, the majority (72.9%) of the nodules were benign on review of the fine needle aspiration. Two hundred thirty patients (9.3%) had an "unsatisfactory" diagnosis on FNAB. Nodules were classified as "suspicious for malignancy" or "malignant" in 39 (1.6%) and 145 (5.9%) respectively. The diagnosis of "indeterminate" was applied in 89 (3.6%) of patients and the term "follicular neoplasm" was used in 166 (6.7%) of patients. Overall, 378 of the 2468 patients underwent surgery to remove the thyroid and in these patients comparisons were made between the surgical and FNAB specimens. In general, there were excellent correlations between FNAB and surgical pathology results.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

There have been no previous studies to specifically assess this new NCI classification system for reporting FNAB results. Studies using very similar classification schemes have shown results consistent with this report.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The recently proposed NCI classification system provides an excellent standard for reporting FNAB results. Institutions should consider employing this classification system routinely.

— Whitney Woodmansee, MD

ATA THYROID BROCHURE LINKS

Thyroid Nodules: http://thyroid.org/patients/patient_brochures/nodules.html

Thyroid cancer: http://thyroid.org/patients/patient_brochures/cancer_of_thyroid.html

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THYROID NODULES, continued

ABBREVIATIONS & DEFINITIONS

Thyroid fine needle aspiration biopsy (FNAB) — 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.

Thyroid nodule — an abnormal growth of thyroid cells that forms a lump within the thyroid. While most thyroid nodules are non-cancerous (Benign), ~5-8% are cancerous.

National Cancer Institute (NCI) — a part of the National Institutes of Health in Bethesda, MD, the NCI is the federal government's primary agency for cancer research and training.

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THYROID CANCER

Elderly Patients With Thyroid Cancer Have Higher Mortality Rates If Not Treated With Surgery And Radioactive Iodine

WHAT IS THE STUDY ABOUT?

Thyroid cancer is common in elderly patients, who often have more aggressive disease. Surgery with a total thyroidectomy and radioactive iodine (RAI) is the usual course of therapy in patients with extensive thyroid cancer. Elderly patients frequently have other chronic diseases as well, which makes thyroid surgery more difficult. As a result, they may have more surgical complications and may not be able to tolerate radioiodine or radiation therapy which is sometimes needed after surgery. The aim of this study was to determine how total thyroidectomy and RAI affect the outcome in elderly patients with thyroid cancer.

THE FULL ARTICLE TITLE:

Park et al. Treatment patterns of aging Americans with differentiated thyroid cancer. Cancer 2009.

WHAT WAS THE AIM OF THE STUDY?

The aim of this study was to determine how total thyroidectomy and RAI affect the outcome in elderly patients with thyroid cancer.

WHO WAS STUDIED?

Among patients with thyroid cancer registered in the SEER database between 1988 and 2003, 8899 patients older than 45 years of age with complete clinical records were selected for this study.

HOW WAS THE STUDY DONE?

Patients were divided into 3 age groups: 45-64 (69%), 65-79 (26%) and >80 (5%) years of age. The records of patients were reviewed as to the patient age, cancer extension, spread to lymph nodes and treatment.

WHAT WERE THE RESULTS OF THE STUDY?

Patients >65 years of age had larger cancer size and more extensive disease as compared to younger patients. While almost all patients had surgery, the number of elderly patients (>80 years) who received total thyroidectomy (95%) was lower than younger patients (99%). About 50% of younger patients also received RAI therapy while only 34% of elderly patients were treated with RAI. Elderly patients who did not have a total thyroidectomy had ~4-fold greater risk of dying as compared to those who had surgery. In all age groups, RAI decreased the risk of dying as compared to those who received these treatments.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

The data in this study, as well as some previous reports, show that elderly patients with thyroid cancer have more extensive disease but receive less aggressive treatment as compared to younger patients. A study by Matsuyama et al reviewed in the October 2009 issue of *Clinical Thyroidology for Patient* showed that surgery for thyroid cancer improves the survival and the quality of life of elderly patients and should not be avoided if they are well enough to tolerate the operation (Castro "Surgery for thyroid cancer increases the survival rate and enhances the quality of life of elderly patients providing they are well enough to tolerate surgery." Clinical Thyroidology for Patients [serial online]. 2009;2(6):10-11. Available at: http://thyroid.org/patients/ct/volume2/issue6/ct_patients_v26_10_11.html).

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Although total thyroidectomy and RAI improves the outcome in patients with extensive thyroid cancer, elderly patients often receive less aggressive therapy as compared to younger patients. A careful selection of treatment and consultation with the patient is needed before making a decision to limit aggrerssive therapy for elderly patients with thyroid cancer.

— Jamshid Farahati, MD

ATA THYROID BROCHURE LINKS

Thyroid cancer: http://thyroid.org/patients/patient_brochures/cancer_of_thyroid.html

Radioactive Iodine Therapy: http://thyroid.org/patients/patient_brochures/radioactive.html

Thyroid Surgery: http://thyroid.org/patients/patient_brochures/surgery.html

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THYROID CANCER, 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.

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).

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/

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

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.

WHO WE ARE

AMERICAN THYROID ASSOCIATION

www.thyroid.org
ATA Patient Resources: http://www.thyroid.org/patients/
Find a Thyroid Specialist: www.thyroid.org
Phone (toll-free): 1-800-THYROID
e-mail: thyroid@thyroid.org

ATA Mission: The ATA leads in promoting thyroid health and understanding thyroid biology.
ATA Vision: The ATA is the leading organization focused on thyroid biology and the prevention and treatment of thyroid disorders through excellence and innovation in research, clinical care, education, and public health.
ATA Values: The ATA values scientific inquiry, clinical excellence, public service, education, collaboration, and collegiality.

To further our mission, vision and values the ATA sponsors "Friends of the ATA" online to advance the information provided to patients and the public such as this publication, Clinical Thyroidology for Patients. We welcome your support.

GRAVES' DISEASE FOUNDATION

www.ngdf.org
Phone (toll-free): 1-877-NGDF-123 or 643-3123
e-mail: Gravesdiseasefd@gmail.com

Founded in 1990, the Graves' Disease Foundation offers support and resources to Graves' disease patients, their families, and health care professionals. Their mission is to find the cause of and the cure for Graves' thyroid disease through research, to improve the quality of life for persons with Graves' disease and their caregivers and to educate persons with Graves' disease, their caregivers, healthcare professionals, and the general public about Graves' disease and its treatment. The web site features a monitored bulletin board.

LIGHT OF LIFE FOUNDATION

www.checkyourneck.com
email: info@checkyourneck.com

The Light of Life Foundation, founded in 1997, is a nonprofit organization that strives to improve the quality of life for thyroid cancer patients, educate the public and professionals about thyroid cancer, and promote research and development to improve thyroid cancer care.

THYCA: THYROID CANCER SURVIVORS' ASSOCIATION, INC.

www.thyca.org
Phone (toll-free): 877 588-7904
e-mail: thyca@thyca.org

ThyCa: Thyroid Cancer Survivors' Association, Inc., founded in 1995, is an international nonprofit organization, guided by a medical advisory council of renowned thyroid cancer specialists, offering support and information to thyroid cancer survivors, families, and health care professionals worldwide.

AMERICAN THYROID ASSOCIATION FOUNDED 1923

Graves' Disease Foundation

Light of Life Foundation checkyourneck.com

ThyCa

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HIGHLIGHT: Graves' Disease Foundation

Annual Patient and Family Conference

The Graves' Disease Foundation's Patient & Family Conference was held on October 16–18 in Charlotte, NC. It was the largest meeting ever for the organization and featured nine specialists and researchers discussing Graves' and thyroid diseases, plus thyroid eye disease. The Foundation's Chief Medical & Scientific Officer Terry J. Smith, MD served as the 2009 Conference Program Chair. The conference provided 200 cumulative hours of family and patient support groups and 1,000 of overall patient education. A total of 16 hours of Nursing Continuing Education Hours were awarded for attending this meeting.

The Graves' Disease Foundation concluded its Patient Education Conference with an Awards Banquet to recognize volunteers for their outstanding performance to further the mission of the Foundation.

Nancy Patterson, PhD who started the Graves' Disease Foundation in 1990 received the "Founder's Award" for her initiative to help others with Graves' disease better understand the symptoms and treatment for it. Nancy, after being diagnosed with Graves' assumed it would be something to be treated, take the medicine, and get on with life — unfortunately this is NOT always the case. When it quickly became a struggle, she began to look for information, and for people to talk to that had faced the same concerns. Unfortunately at that time there was no organization with this mission. Undaunted, Nancy took it upon herself to create such an organization. "Through these years, I have been honored to join hands with many dedicated volunteers and physicians who believe that the Foundation can educate, encourage and empower patients and caregivers to improve the quality of their lives," Nancy said. Foundation President Peter Filocamo stated, on behalf of the hundreds of thousands of patients and family members you have counseled, we are all motivated by your vision and mission! The Founder's Award with its story of the Starfish, represents your efforts to make a difference and help one patient at a time.

> "Through these years, I have been honored to join hands with many dedicated volunteers and physicians who believe that the Foundation can educate, encourage and empower patients and caregivers to improve the quality of their lives."
> — Nancy Patterson, PhD

Among the topics presented at the meeting were the following: 1) What's NEW in our understanding of Graves' Disease; 2) Fat & Boney decompressive surgery in Ophthalmopathy; 3) Pros & Cons of Radioactive Iodine with hyperthyroid patients with GO; 4) Steroids vs. Radiotherapy in the treatment of Graves' Eye disease; 5) Surgical management of eyelid problems with Graves' Orbitopathy; 6) How Doctors treat Graves' disease — Medications, RAI, & Surgery; 7) Medical management of Graves' Orbitopathy & correction of double vision; 8) Why my emotions are changing with Graves' — a Patient's perspective; 9) I'm pregnant — how will the management of my Graves' disease change?; 10) Diagnosis & Treatment of Children with Graves' disease; 11) Dermatology and Graves' and 12) Graves' Disease: an Autoimmune Disease. The following physicians participated in these presentations: Terry J. Smith, Ray Douglas, Larry Wood, Alon Kahana, Jonathan Dutton, David S. Cooper, Jonathan Dutton, Ira Lesser, Richard Kleinmann, John A. Thompson and Noel Rose.

The GDF awarded its 2009 "Volunteer of the Year" honor to Sharon Barbour from San Jose, California.

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HIGHLIGHT: : Graves' Disease Foundation, continued

Annual Patient and Family Conference

Sharon or 'Ski' was selected for her outstanding dedication to the Foundation as a Facilitator on the Bulletin Board. As a Graves' patient, Ski has advised thousands of patients who posted questions on the Bulletin Board seeking help and support. Peter Filocamo, President, Graves' Disease Foundation described Sharon as a shining example of a volunteer who works tirelessly to assist other Graves' patients who visit the Foundation's website struggling to understand the impact of Graves' disease on their life and their family relationships.

Kathleen Bell Flynn and her husband Steve Flynn received the Foundation's "Making a Difference Award" for their loyal dedication and unwavering commitment. Kathleen and Steve have made outstanding contributions towards our goals and are instrumental in leading us towards a paradigm change for help and hope.

Doctor Terry J. Smith, renowned researcher and Chief Medical & Scientific Officer for the Foundation was given the Foundation's Leadership Award for developing a goal for funding Graves' research plus organizing the medical content of the Patient Conferences and securing medical experts to speak at the meetings.

David Scholl, PhD President & CEO of Diagnostic HYBRIDS was recognized as the the 2009 Conference Presenting Sponsor. In addition, Diagnostic Hybrids has recently launched the ThyretainTM TSI Reporter BioAssay, the first FDA-cleared test that specifically detects thyroid stimulating immunoglobulin in patient serum. Thyretain is to be used as an aid in the differential diagnosis of Graves' disease. GDF is honored to partner with Diagnostic Hybrids to increase patient, public and professional awareness of the seriousness of Graves' disease.

Support Group Leaders "Program Excellence Awards" were given to the Charlotte, North Carolina group led by Adrienne Love and Laurie Eustis and the Belleville, Illinois group led by Becky and Andy Nicholson. These are two of the Foundation's most active Groups in grateful appreciation and recognition of their hard work, devotion and commitment to offering psychological and emotional support to patients and family members.

The 2010 Annual Meeting will take place in San Diego, CA this fall. Details will be available at www.ngdf.org and in future issues of this Journal.

— **Peter Filocamo,** President, Graves' Disease Foundation

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ATA Alliance for Thyroid Patient Education CALENDAR OF EVENTS

Educational forums, patient support groups and other patient-oriented meetings

ATA Conferences www.thyroid.org

Saturday, May 15, 2010 — Hyatt Regency, Minneapolis, Minnesota
ATA Alliance for Thyroid Patient Education Public Forum

Graves' Disease Foundation Conferences www.ngdf.org

Fall 2010 — San Diego, CA
Annual Meeting

Light of Life Foundation Conferences www.checkyourneck.com

Spring 2010 — New York, NY
Light of Life Educational Symposium

ThyCa Conferences www.thyca.org

2010 Spring Date to be announced — Washington, DC, Area
9th Annual Mid-Atlantic Thyroid Cancer Survivors' Workshop
Free one-day educational event. Sponsored by ThyCa: Thyroid Cancer Survivors' Association, Inc.

Saturday, April 17, 2010 — Kansas City, Missouri
6th Midwest Thyroid Cancer Survivors' Workshop
Free one-day educational event. Sponsored by ThyCa: Thyroid Cancer Survivors' Association, Inc.

Saturday, May 29, 2010 — St. John's, Newfoundland, Canada
Newfoundland and Labrador Thyroid Cancer Survivors' Workshop
Free one-day educational event. Sponsored by ThyCa: Thyroid Cancer Survivors' Association, Inc.

June 4–5, 2010 — Rockville, Maryland
Hypoparathyroidism Association Patient Conference
At the Rockville Hilton Hotel, Rockville, Maryland
Details at www.hypoparathyroidism.org.

September 2010
Thyroid Cancer Awareness Month
Sponsored by ThyCa: Thyroid Cancer Survivors' Association, Inc. Plus year-round awareness campaigns.
Visit the Raise Awareness Page to download free flyers, or request free awareness materials.

October 15–17, 2010 — Dallas, Texas.
The 13th International Thyroid Cancer Survivors' Conference
Sponsored by ThyCa: Thyroid Cancer Survivors' Association, Inc.

October 16, 2010 — Dallas, Texas
The 8th Annual Dinner/Auction Fundraiser for Thyroid Cancer Research
Thyroid Cancer Survivors' Conference. Sponsored by ThyCa: Thyroid Cancer Survivors' Association, Inc.