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Thyroid News from the 8th European Congress of Endocrinology, April 2006

The European Congress of Endocrinology has just finished its annual meeting in Glasgow, Scotland, and there has been a wealth of interesting thyroid news coming out of this conference. Here are summaries of some of the most interesting thyroid-related studies reported on at the conference, as detailed in the research abstracts.

Hypothyroidism Among Women in an Iodine Deficient Area

Researchers studied women in the Adjara region of the former Soviet republic of Georgia, an area with high levels of iodine deficiency. The objective: to study subclinical thyroid dysfunction in women age 40 and older in an iodine-deficient area. A total of 693 women age 40 and above were examined over a 7-year period.

The researchers found:

- A very high frequency of hypothyroidism was seen among the women age 40-55 (average 44), with 7.9% of the women with a TSH of 4.1 or higher
- A high frequency of hypothyroidism was seen among the women who were 56-78, with 17.7% of the women with a TSH of 4.1 or higher

Source: S Glonti, et. al. "Prevalence of subclinical dysfunctions of thyroid gland in women older than 40 years." 8th European Congress of Endocrinology, April 2006, Glasgow, UK

RAI, Vs. RAI with Lithium: Which Works Better?

Radioactive iodine (RAI) is a common treatment for hyperthyroidism. The drug lithium is able to block the release of iodine and thyroid hormone from the thyroid gland, without affecting the RAI treatment's effectiveness. Researchers looked at the effectiveness of RAI alone for hyperthyroidism treatment, versus RAI with lithium. In the study, 41 patients were randomly assigned RAI, or RAI plus lithium. They were monitored at weeks 1, 3, 9, 12 and at least 6 months post treatment. Both groups were similar in age, gender, and RAI dose.

What the researchers found was that there was no difference between the two groups, and the additional of lithium does not appear to make RAI more effective, or result in an improved outcome.


Subacute Thyroiditis: Outcomes

Russian researchers looked at the results of treatment and outcomes in patients with subacute thyroiditis, over a 12-year period. The 102 patients studied (84 women, 18 men) had

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De Quervain’s subacute thyroiditis. Some interesting findings:

- Almost all the patients -- 98% -- had a history of upper respiratory tract infection.
- Among 102 patients 76 received prednisone (steroid) therapy. The remaining patients received nonsteroidal anti-inflammatory drugs (NSAIDs).
- 16 patients (16.3%) developed a recurrence, and among them, 14 had a recurrence within the first year. One patient had a recurrence 4.5 years later, and another 10 years later. Recurrence is therefore most likely in the first year.
- Only 15 (15.3%) of the patients became permanently hypothyroid and required thyroid hormone replacement therapy.


Do Dosage Requirements Change Over Time?

A British study looked at changes in dosage requirements in long-term follow-up of hypothyroid patients. In the study, 5,029 patients who had been followed for a minimum of 4 years were evaluated. Among them, 88% were female, 74% had autoimmune hypothyroidism, and the mean age at registration was 53. The mean levothyroxine dose was 115.5 mcg/day.

After follow-up, at a mean of 8 years, the population generally needed an increase in thyroid dosage, to a mean of 122 mcg. This increase was most predominant in patients who had autoimmune disease - possibly because they had progressive thyroid failure. During subsequent follow-up, the dosage was unchanged in 42%, and 29% required a small increase in dose of 25 mcg. In general, patients on a dose of 100-150 mcg of levothyroxine were most likely to stay stabilized over time. As patients got older, levothyroxine requirements also fell by approximately 0.73 mcg/year.

The researchers concluded that the levothyroxine dosage remained unchanged in most patients who started at a level of 100150 mcg.


How Long Should You Go Between Tests?

One British study looked at what interval of thyroid testing is the best option for stable hypothyroid patients on thyroid hormone replacement drugs. Typically, the majority of doctors recommend testing every year, but in this study, a population of patients on an 18-month follow-up program were studied. A total of 2,125 patients were studied, and they had been followed a minimum of 10 years. 89% were female and 65% were hypothyroid due to autoimmune hypothyroidism. A total of 1182 (56%) were in the 18-month follow-up, and the rest had annual testing.

What the researchers found was that there was no difference in the outcomes between those on 18-month testing, versus annual testing. Interestingly, the number of patients who had test results that were hypothyroid (in this study, that was a TSH greater than 4) was actually lower in the 18-month group.

The researchers concluded that their results do not support a change to more frequent testing, and that testing every 18 months should be an option for stable hypothyroid patients.

Source: Viswanath AK, et. al. "What is the most effective screening interval in the long-term follow-up of stable hypothyroid patients on thyroid hormone replacement therapy?" Endocrine Abstracts (2006) 11 P916, 8th European Congress of Endocrinology, April 2006, Glasgow, UK

Radioactive Iodine (RAI): Contrasting Practices

While antithyroid drugs or surgery have traditionally been the treatments of choice in Europe for hyperthyroidism, Radioactive Iodine (RAI) is becoming increasingly popular. Patients, however, express concern about radiation, and ask about the alternative of long-term use of antithyroid drugs. While some doctors have argued that there is no treatment or remission benefit to using antithyroid drugs for more than 24 months, recently, a small study has shown that there was no disadvantage in long term use (10 years or longer) of antithyroid drugs, as compared to RAI, in terms of cost or complications.

Study author Dr. A. Toft, known for his controversial positions on thyroid disease, says in his research abstract:

At a time when there is no consensus about the correct form or dose of thyroid hormone replacement it is perhaps unwise to champion the more liberal use of iodine-131, at least in the treatment of Graves’ disease when the majority will develop thyroid failure within months of receiving a standard dose of 400 MBq. Furthermore,

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there is some evidence for increased morbidity and mortality from cardiovascular disease in patients with both autoimmune and non-autoimmune forms of thyroid disease, and iodine-131 therapy may be a contributing factor. Perhaps it is time to reconsider the relative roles of antithyroid drugs, iodine-131 and surgery. After all, although none of these treatments is perfect, each is effective and there is evidence that patients have no particular preference.

**What Does This Mean for You?**

I've talked in my book, *Living Well With Graves' Disease and Hyperthyroidism*, about the European preference for antithyroid drugs, as compared to the U.S. preference for RAI treatment, but RAI is becoming increasing used in Europe. I urge anyone whose hyperthyroidism is not life-threatening to research, learn, and find out more each option and its pros and cons, which include: antithyroid drugs, RAI, surgery, natural/complementary medicine, or a combination approach.


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**Subclinical Hypothyroidism is Associated with High Cholesterol Levels**

Yugoslavian researchers looked at the risk of hypercholesterolemia (high cholesterol) in patients with subclinical hypothyroidism. (Subclinical hypothyroidism is defined as elevated TSH with normal T4, and no clinical symptoms.)

The objective was looking at whether patients with subclinical hypothyroidism are at risk of high cholesterol. The study looked at 37 adults (34 female and 3 male), their mean age was 49, and all were confirmed as subclinically hypothyroid, with a TSH above 4.5, and normal T4.

The results showed that 75.67% of the patients with subclinical hypothyroidism had elevated serum cholesterol. The percentage of subclinically hypothyroid patients who have high cholesterol is significantly higher than the percentage of those with normal cholesterol levels. Therefore, subclinical hypothyroidism seems to be associated with high cholesterol levels.

**What Does This Mean for You?**

Interestingly, many doctors argue that no thyroid treatment is needed for subclinical hypothyroidism, yet these same doctors would recommend treatment for elevated cholesterol, using statin drugs (which have a list of known warnings and side effects.) Thyroid treatment is considered extremely safe, and is very inexpensive as well, especially when compared to the cost of statin drugs.

One has to wonder if there is a financial or drug company agenda behind the continued adherence to the "subclinical hypothyroidism doesn't require treatment" dogma that so many doctors follow, particularly when it's clear that this condition can be a risk factor for high cholesterol, a condition doctors almost always agree to treat -- with costly drugs that have significant side effects and dangers.


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**Preventing Thyroid Eye Disease**

Researchers looked at prevention of thyroid eye disease. By definition, "primary prevention" refers to preventing a disease by removing risk factors. "Secondary prevention" focuses on early detection, when there are no symptoms, and when treatment can stop disease progression. "Tertiary prevention" refers to preventing further worsening or reducing complications after the disease is evident.

Primary prevention is difficult to some extent, because there are a number of potential risk factors that are not preventable -- including genetics, age and gender.

Preventable risk factors, however, include cigarette smoking, thyroid dysfunction, radioactive iodine treatment, but more research is needed to identify other potential factors.

In thyroid eye disease, secondary prevention is difficult, because there are no blood tests for early detection of the condition.

Smoking increases the risk of thyroid eye disease, worsens the condition itself, and makes treatment less effective. One of the most critical preventative actions, therefore, is to avoid smoking entirely, or to stop smoking.

Since hyperthyroidism also has a negative effect on thyroid eye disease, careful control of thyroid function is also a preventative action that should be taken.

Finally, the researchers mention that radioactive iodine (RAI) treatment does carry a small but identifiable risk of worsening thyroid eye disease -- except when done along with glucocorticoids -- so this is a factor when considering prevention.


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**Checking Thyroid Function in Early Pregnancy**

In a woman with no thyroid dysfunction, Free T4 typically rises, and TSH falls during the first trimester of pregnancy. In hypothyroid women, Free T4 tends to fall, and TSH rises if the dose of thyroid hormone replacement medication is not increased. Because the fetus’ thyroid is developed by approximately 12 weeks gestation, and thyroid hormone secretion begins later, it’s particularly important that there be sufficient thyroid hormone replacement in the mother in the first trimester.

There is, however, debate over how early the dosage of thyroid medication needs to be changed in a pregnant women. To that end, researchers looked at 83 hypothyroid women who were pregnant. In 50 of the women (60.2%), their first visit to the clinic occurred after 12 weeks gestation. The remaining women were seen at 12 weeks gestation or earlier. What the researchers found was that 67.4% of the women were underdosed at the time of their first visit, suggesting that critical increases in dosage were delayed. Since hypothyroidism during pregnancy, and particularly during the first trimester, can have a negative outcome on fetal development and pregnancy outcome, these delays are problematic.

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Sticking Out Our Necks

Thyroid News from the 4/06 European Congress of Endocrinology -- Continued from Page 3

What Does This Mean For You?

As I mention in my Thyroid Guide to Fertility, Pregnancy and Breastfeeding Success, you should do sensitive home pregnancy testing as early as a week to 10-days post-conception in order to detect your pregnancy as early as possible. Do not allow an ob-gyn to delay your first pregnancy visit until you are 6 to 10 weeks pregnant, as is typical, because this may allow you to become rapidly hypothyroid. Instead, insist on immediate thyroid testing and discuss a dosage increase as you confirm the pregnancy with a home test. -- Mary

Hyperthyroidism and Sleep

Italian researchers looked at the relationship between the thyrotoxic (hyperthyroid) state, and sleep quality and quantity. Overtly hyperthyroid patients were studied, compared to normal subjects. While both groups spent similar time in bed, the hyperthyroid group slept less in terms of quantity of time -- approximately a half hour or more. And among the hyperthyroid group, significantly impaired sleep quality was seen, as compared to the normal subjects. The hyperthyroid people had far more waking and going back to sleep, and a higher percentage of their time was restless movement.

Overall, the researchers have concluded that there are both quantitative and qualitative sleep disruptions in patients with hyperthyroidism.


The Impact of Subclinical Hypothyroidism Treatment on Women's Health in Middle Age

Researchers looked at the effects of levothyroxine on levels of prolactin, CRP (C-reactive protein, a marker for inflammation and heart disease risk) and insulin in premenopausal women with subclinical hypothyroidism. The study looked at 21 women who were on average 41 years of age, and who had subclinical hypothyroidism. They had thorough laboratory evaluation, including free T3, free T4, TSH, prolactin, insulin, cortisol, ACTH, GH, follicle stimulating hormone, luteinizing hormone, estradiol (E2), thyroid antibodies and TGL, level of CRP and level of lipids. Imaging tests included ultrasound and scintigraphy.

What the study found was:

- 11 patients had hyperprolactinemia (high levels of prolactin)
- 14 patients had fasting hyperinsulinemia (high insulin levels, indicative of metabolic syndrome or diabetes)
- 8 patients had amenorrhea (absence of menstrual periods)

All the patients were treated with low dose of levothyroxine of from 25 to 50 mcg.

After six months of treatment, and all of the women had TSH levels in the normal range, researchers observed the following:

- Prolactin levels significantly decreased
- CRP levels decreased
- Fasting insulin levels decreased
- 6 of the 8 women who had amenorrhea had returned to normal menstrual cycles

What Does This Mean For You?

While this is just one study, hopefully, this sort of research will start to make an impact on the treatment-averse practitioners who believe that subclinical hypothyroidism is not a problem. Thyroid treatment can protect health, and prevent disease in many cases, and this study helps show the dramatic impact of even low level treatment.


Thyroid Drug Price Check As of Apr. 1, 2006

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<th>100 pills at CanadaPharmacy.com</th>
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<td>Armour Thyroid, 90 mg 1 1/2 grains</td>
<td>$24.43 (same as 4/1/05)</td>
<td>$20.00 ($11 less than 4/1/05)</td>
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Hyperthyroidism and Sleep

**Medicare Part D: New Drug Benefit: Worth The Effort?**

A common source of worry for many people on Medicare is their ability to afford the prescription drugs they need to remain healthy. The good news, however, is that if with Medicare’s new prescription drug coverage program, “Part D,” you could pay $5 or less for many of your prescription medications.

Because the program is still new, understanding how it works can seem challenging. And signing up for Part D takes time and is not easy. But the benefits are making it well worth the effort for millions of Americans, and there is plenty of information available to help you sign up for the plan that is right for you.

Here are a few tips to help you get started.

**Step 1: Don’t Go It Alone**

- Talk to other seniors who have gone through the process. To date, surveys show the majority of people who have signed up for a Part D plan say their efforts to understand the plans and enroll are worth it.
- Take advantage of meetings available in your community to help you understand the drug program and to get assistance signing up. Check with the local AARP office, local senior centers, the library, your health insurer or other experts for educational events.

**Step 2: Learn As Much As You Can**

- Go to libraries, publications and your Medicare & You handbook for toll-free phone numbers of the plans available in your area.
- If you think you may qualify for extra help with your Part D costs you should call: 1-800-MEDICARE (1-800-633-4227). TTY/TDD users should call 877-486-2048, (24 hours a day/7 days a week), or your State Medicaid Office, or the Social Security Administration at 1-800-772-1213 between 7 a.m. and 7 p.m., Monday through Friday. TTY/TDD users should call, 1-800-325-0778.
- If you have Internet access, visit Medicare’s Web site at www.medicare.gov. It has a wealth of information, including a Medicare Prescription Drug Plan Finder that helps compare plans in your area. Other helpful Web sites include www.aarp.org/medicarerx and www.MedicareRxInfosource.com.
- If you don’t have internet access but need help, you can call AARP at (888) OUR-AARP for a brochure that lays out the steps you need to take to find the best drug plan.

**Step 3: Make Sure You’re Signed Up**

- Once you’ve enrolled in the plan, your acknowledgement letter from Medicare and/or the enrollment confirmation letter from your health plan serves as temporary proof of coverage. The letter plus your Medicare and/or Medicaid ID cards, will allow you to fill prescriptions until you receive your health plan’s ID card.
- If you are a Medicaid enrollee and have not received information about which plan you have been enrolled in you should call: 1-800-MEDICARE (1-800-633-4227). TTY/TDD users should call 877-486-2048, (24 hours a day/7 days a week), or your State Medicaid Office, or the Social Security Administration at 1-800-772-1213 between 7 a.m. and 7 p.m., Monday through Friday. TTY/TDD users should call, 1-800-325-0778.
- Enroll before the 15th of the month. This helps ensure your enrollment information is in the pharmacy computer systems by the first of the following month.
- If you currently receive drug coverage through a Medicare Supplement plan, check with your Medicare Supplement plan provider: You may be able to realize additional savings under Medicare Part D.

Remember, if you are currently eligible for Medicare, enrolling before the May 15 deadline will help you avoid late enrollment fees. While the process may seem challenging, enrolling in a Part D plan may save money and help you get the drugs you need now and in the future.

**Warm Weather Family Skin Care**

Winter’s not the only time to pay attention to your family’s skin health. Now that Spring is here, and many of us head off on Spring break trips to warmer climates, sun, chlorine and even air-conditioning can deplete skin’s natural moisture, leaving it feeling dry and uncomfortable. And many thyroid patients suffer extra problems, as skin becomes particularly dry or coarse as a result of a thyroid imbalance.

Deborah S. Sarnoff, M.D., New York City Cosmetic Dermatologist and Associate Clinical Professor of Dermatology, NYU School of Medicine, offers these tips to help families keep the “itchies” at bay:

- In the Pool—According to recent studies, swimming in chlorinated or sea water causes a 20 percent reduction in skin hydration, which can lead to dry and itchy skin. Worse, the uncomfortable feeling can last up to four hours after swimming.
- In the Bath—Women who shave their legs can calm after-shave irritation and dryness with a thick moisturizer containing glycerin. Dr. Sarnoff recommends applying a moisturizer immediately after a shower or bath to lock moisture into the skin. If skin is especially irritated, apply a soothing ointment.
- In The House—Air-conditioning can zap moisture from the air in your home and from your skin. Keep effective hand and body moisturizers in the house for those dry-skin moments, and consider investing in a humidifier for your home.
- For Him—Men often take off their shirts in the hot weather, which can lead to drier skin. When the temperature rises, dermatologists advise heavier, “greasier” moisturizers such as creams and ointments because these are more effective at holding moisture in skin and helping heal dry areas.
- For The Kids—Moisturizer is a summer camp essential. Pediatricians recommend using moisturizers that contain oatmeal to calm the dry-skin itch, and which are also nonirritating, so they’re safe for children with sensitive skin and eczema.
Can Sunscreen Make You Hypothyroid? Study Shows UV Filters May Disrupt Hormone Production

According to research being presented at the European Congress of Endocrinology in Glasgow, Scotland, there is evidence from animal studies that the chemicals used in sunscreens and some anti-aging products may disturb thyroid function.

The chemical studied was 4MBC, which absorbs ultraviolet radiation, along with benzophenone 2 (BP2). The animal studies treated rats with 4MBC for 5 days, which significantly increased levels of thyroid stimulating hormone (TSH), with unchanged T3 and slightly lower T4. These are changes that are "typical of the early stages of hypothyroidism," according to the study’s leader Professor Josef Khrle.

The weight of the thyroid glands also increased significantly, another sign of thyroid dysfunction.

Interestingly, the thyroid effects were prevented if there was adequate iodine in the mixture.

The researchers stress that the results have only been shown on animals to date, but that similar human studies will be done.

According to Professor Khrle:

The work has shown that MBC and BP2 are potent disruptors of the pituitary-thyroid hormonal system in rats. It’s early days, but if the same effect is discovered in humans, then we may have to rethink how we protect children and those with existing thyroid problems or those in iodine-deficient areas from sun exposure.

It’s important to note that the chemicals were fed to the rats — because surveys in many areas have shown these chemicals in the water supplies, but these studies were not of topically applied chemicals that enter the blood via the skin.

At present however, most experts agree that any theoretical thyroid risks of sunscreen outweigh the known benefits.

Professor Khrle suggested that people not give up sunscreen, but instead, make sure their diet includes enough iodine.

Source: Professor Khrle presented the findings at the 2006 European Congress of Endocrinology.

Over One Billion People May Suffer From Vitamin D Deficiency

Clinicians estimate that millions of people around the world are suffering from mild vitamin D deficiency. Now a prominent European clinician has called for international action to address the problems which may lead to increased osteoporosis, cancer, and other diseases.

Vitamin D was discovered about a century ago. Its widespread use in infants has virtually eradicated severe vitamin D deficiency and rickets. The elderly and immigrant populations with darker skin are most seriously and most frequently deficient. Moreover insufficient vitamin D may have broader health consequences than previously thought.

Speaking at the European Congress of Endocrinology in Glasgow, Professor Roger Bouillon of the University of Leuven called for concerted research projects to back up the animal work linking vitamin D insufficiency with global health risks such as osteoporotic fractures, cancer and auto-immune diseases.

Vitamin D status can be readily estimated by measurements of serum 25-hydroxyvitamin D, and optimal health requires at least 20 ng 25(OH)D/ml. By this definition, half of the people over 60 in Europe alone are already deficient. In some populations this figure is even higher.

Vitamin D can either be obtained from food but natural food sources except fatty fish has a low vitamin D content. Exposure to sunlight can also produce vitamin D but the very same ultraviolet light is also responsible for accelerated ageing and cancer of the skin.

Therefore, vitamin D intake should be increased by food supplementation.

Professor Bouillon said:

We already know that insufficient vitamin D increases the risk for osteoporosis, falls and fractures. This is preventable by additional calcium and vitamin D intake (400-800 IU/d) for the elderly people. There are now however new and growing evidence that mild vitamin D deficiency is also associated with more tuberculosis, and some epidemiological studies suggest an increased risk for colon, breast and prostate cancer, and also auto-immune diseases such as type 1 diabetes. Animal data clearly support an essential role of vitamin D metabolites in the regulation of cell proliferation (cancer) and the immune system (auto-immune diseases and infection such as tuberculosis)."

As this insufficiency of vitamin D is a worldwide problem we need large scale prospective studies to proof that improved vitamin D intake translates into less cancer, auto-immune diseases and better global health status. If such studies show the expected beneficial effects suggested by animal studies then

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The researchers examined the activity of the clock gene Per1 in the organs of living animals. The team found that nighttime light exposure induced Per1 expression in the adrenal gland. Further analysis of the gland revealed numerous changes in the activity of almost 200 genes, followed by the delayed release of corticosterone.

When the researchers severed the SCN, light’s effect on the gland was lost, indicating that the phenomenon is closely linked to the circadian clock, they said.

"The surge of blood corticosterone after light exposure indicates that environmental signals are instantly converted to glucocorticoid signals in the blood and cerebrospinal fluid," Okamura reported. "The present light-induced corticosterone release may entrain metabolically peripheral clocks to the environmental light-dark cycle through its prevailing receptors located in virtually all cells in the body."

The findings could prove of great clinical and physiological interest, wrote Ueli Schibler and Steven Brown in an accompanying commentary.

"If a light-induced pathway were also operative in humans, a question that could readily be examined by recording blood cortisone levels after light exposure, it would be tempting to speculate that cortisone-mediated synchronization of peripheral circadian clocks would be one of the beneficial effects light therapy has on patients with seasonal affective disorder," Schibler and Brown said.

"It might also explain why bright light therapy can aid patients with other disorders--such as major depressive disorder and bipolar disorder--not typically associated with the circadian clock," they continued.

The researchers include Atsushi Ishida, Tatsushi Mutoh, Tomoko Ueyama, Satoru Masubuchi, and Hitoshi Okamura of the Kobe University Graduate School of Medicine in Kobe, Japan; Hideki Bando of Kobe University Graduate School of Medicine in Kobe and of Kyoto Prefectural University of Medicine in Kyoto, Japan; Daichihiro Nakahara of Hamamatsu University School of Medicine, Hamamatsu, Japan; and Gozoh Tsujimoto of Kyoto University Graduate School of Pharmaceutical Sciences in Kyoto, Japan. This work was supported by Scientific Grants from the Ministry of Health, Welfare, and Labor, The Special Coordination Funds and the Scientific Grants of the 21st Century COE Program from Ministry of Education, Culture, Sports, Science, and Technology of Japan, SRF, and Hyogo Science and Technology Association.

The disease known as "Hashimoto’s Encephalopathy" was first described only in 1966. After that time, doctors began to assemble case reports, and "Hashimoto’s Encephalopathy" became the accepted name for the condition of encephalopathy associated with Hashimoto’s thyroiditis.

Because most patients with Hashimoto’s Encephalopathy improve with steroids or immunosuppressant treatment, some experts now refer to the condition as "steroid-responsive encephalopathy associated with autoimmune thyroiditis" (SREAT). In some cases, the condition may also be called "nonvasculitic autoimmune meningoencephalitis" (NAIM), which can include not only autoimmune thyroid problems, but also other autoimmune disorders such as Sjögren syndrome and systemic lupus erythematosus-associated meningoencephalitis.

The commonality among all these conditions is that they are responsive to steroid treatment.

The term "encephalopathy" refers to a disease of the brain that alters brain function or structure. The key feature of any encephalopathy is altered mental state. While symptoms depend on the type of encephalopathy and how serious it is, some common symptoms include:

- memory loss, difficulty concentrating
- loss of cognitive ability and function
- personality changes
- lethargy and fatigue
- loss of consciousness
- myoclonus (an involuntary twitching of muscles), tremors
- nystagmus (rapid, involuntary eye movement)
- weakening of muscles
- dementia
- seizures, convulsions
- difficulty swallowing
- difficulty speaking

Some other symptoms that may be seen include:

- confusion, disorientation
- psychosis
- headaches
- right sided hemiparesis - right sided partial paralysis
- fine motor movement problems - problems with coordination of arms, hands, fingers

Because Hashimoto’s Encephalopathy/SREAT is so misunderstood, in a study reported on in the February 2006 Archives of Neurology, experts set out to characterize the various clinical, laboratory, and radiologic findings of the condition. Their objective is to help improve doctors’ ability to recognize and diagnose this condition.

The study looked at 20 patients (14 women, 6 men) who were diagnosed between 1995 and 2003. Their median age at disease onset was 56 years, with a range of 27 to 84 years (range, 27-84 years).

The most frequent observable clinical features/symptoms were:

- Tremor -- 80%
- Transient aphasia -- 80% (Aphasia is difficulty with language, affecting the ability to speak, read or write)
- Myoclonus -- 65% (sudden, involuntary jerking of a muscle or group of muscles)
- Gait ataxia -- 65% (uncoordinated or clumsy walking, difficulty walking)
- Seizures -- 60%
- Sleep abnormalities -- 55%

Misdiagnosis is Standard

What is of particular concern is that the experts found that ALL PATIENTS had originally been misdiagnosed. For example:

- Viral encephalitis -- 25%,
- Degenerative dementia -- 20%
- Creutzfeldt-Jakob disease -- 15% (Creutzfeldt-Jakob disease is a rare, degenerative, invariably fatal brain disorder, sometimes erroneously referred to as "Mad Cow Disease" in humans)

Laboratory and Test Abnormalities in Hashimoto’s Encephalopathy/SREAT

A number of test abnormalities were observed, including:

- Increased liver enzyme levels -- 55%
- Increased thyroid-stimulating hormone (TSH) levels -- 55%
- Increased erythrocyte sedimentation rate ("sed rate") -- 25%
- Cerebrospinal fluid abnormalities suggesting inflammation -- 25%
- Magnetic resonance imaging abnormalities consistent with encephalopathy -- 26%

Conclusions

The researchers concluded that there are a variety of findings that can be associated with Hashimoto’s Encephalopathy/SREAT, and that misdiagnosis is common.

The researchers recommend that Hashimoto’s Encephalopathy/SREAT should be considered even if TSH and "sed rate" are normal, cerebrospinal fluid does not show evidence of inflammation and the MRI is normal.

Sources


National Institute of Neurological Disorders and Stroke
The Return of the TRH Stimulation Test: The Challenge Test That May Detect Hypothyroidism Better Than the TSH Test

If you ask Dr. Raphael Kellman, every doctor in America should not only know how to do the TRH Stimulation Test, but should be performing this test regularly with patients. Kellman, an integrative medicine practitioner in New York City, has been working with thyroid patients for more than a decade, and his current mission is to champion the return of a test that is considered outdated by many practitioners, and is entirely unknown to yet others.

To understand how the TRH Stimulation Test works, it’s helpful to quickly review how the various brain hormones interact with the thyroid.

First, your hypothalamus is a gland in your brain that secretes thyrotropin releasing hormone (TRH).

Next, when the TRH is released, it stimulates your pituitary gland -- also in the brain -- to release thyroid stimulating hormone (TSH).

Finally, TSH stimulates the thyroid itself to make thyroid hormones.

According to Dr. Kellman:

"If the thyroid gland is underactive, and thyroid function is low, TSH levels will be very high, as the pituitary, prompted by TRH, churns out lots of TSH in an effort to get an uncooperative thyroid going. This test is obviously more time-consuming, but it is hands-down the best way to detect subtle thyroid problems..."

While the TSH test is viewed by conventional practitioners as the "gold standard" for detecting hypothyroidism, Kellman believes that the TRH Stimulation test overcomes serious limitations of the TSH test. According to Kellman:

The TSH test is a picture in time of circulating levels of thyroid hormone. But by challenging the thyroid, the TRH Stimulation Test evaluates the thyroid’s actual ability to function in real life.

According to Kellman, it’s helpful to consider the difference between the TRH Stimulation Test and the TSH test much like the difference between a cardiac stress test versus a cardiogram, or a glucose tolerance test versus a fasting glucose level. Says Kellman: "As a stimulation test, when the thyroid is challenged, the results can show whether the thyroid is impaired in any way..."

Kellman, who in his practice has run more than 10,000 TRH tests, says that for every 100 patients with thyroid disease, the routine TSH blood test will detect 30 cases, but the TRH test will identify approximately 90 patients.

With most practitioners, use of the TRH Stimulation Test was replaced by the TSH test. Conventional doctors consider the TSH test highly accurate, and it requires only one blood draw and no special supplies.

In comparison, the TRH test requires two separate draws a half hour apart, and it requires availability of TRH, and the knowledge of how to accurately perform and interpret the test.

The TRH test is occasionally used to help identify secondary hypothyroidism (hypothyroidism due to pituitary problems) and tertiary hypothyroidism (hypothyroidism due to hypothalamic disorder). But Dr. Kellman is one of the only doctors in the U.S. who uses the TRH Stimulation Test to identify borderline hypothyroidism, or hypothyroidism despite "normal" TSH levels.

Kellman believes the test is essential when traditional TSH tests are borderline, and when a patient has obvious thyroid symptoms but normal TSH results.

According to Dr. Kellman:

"In some individuals (and depending on the physician’s interpretation of the laboratory tests), outright hypothyroidism may take as long as 20 years to develop. With the help of measures such as the TRH stimulation test, I am able to diagnose hypothyroidism when the onset of symptoms (fatigue, weight gain, etc.) precedes abnormal laboratory values. Early intervention thus may save patients from years of needless suffering.

He also uses the TRH stimulation test periodically in follow-up of patients being treated for hypothyroidism, as, according to Dr. Kellman, "it allows us to objectively determine the best possible dose of thyroid hormone replacement for the patient."

What’s Wrong With Doctors Who Rely Solely on the TSH Test?

Dr. Kellman believes that doctors who rely solely on the TSH test as their only tool to diagnose or manage hypothyroidism are working off an old paradigm. Says Kellman:

"They’re taking a static picture of the thyroid, rather than assessing its functionality. I don’t know how other doctors aren’t doing this test. Doctors who don’t use the TRH test are simply not using everything at their disposal to make a diagnosis."

Continued on page 10
Endocrinologists Release New Guidelines for Treatment of Thyroid Nodules

The American Association of Clinical Endocrinologists (AACE) announced the release of its medical guidelines for the diagnosis and management of thyroid nodules. The guidelines are published in the January/February 2006 issue of Endocrine Practice, a peer-reviewed journal of AACE. Find out more information about the guidelines, and a link to the electronic version of them now.

The new guidelines take into account the advances and new strategies that have occurred in the management of thyroid nodules since the original guidelines were created in 1996.

The new guidelines were developed by a panel of experts who encompass different disciplines, including endocrinology, nuclear medicine, surgery, and evidence-based medicine. The task force was convened by AACE, the American College of Endocrinology (ACE), and the Associazione Medici Endocrinologi (AME). This document is the first collaborative effort between AACE and AME. The writing committee was comprised of 11 physician members of both societies, who were intentionally selected with the objective of creating a diversely opinionated group in order to strengthen their consensus opinions.

The guidelines emphasize the importance of thyroid nodules in clinical practice. Thyroid nodules are common in the general population and they are typically discovered by palpation in 3% to 7% and by ultrasound (US) examination in 20% to 75%.

"Extra" nodules are detected by ultrasound in up to 50% of patients with a single palpable thyroid nodule. The estimated annual incidence rate of 0.1% translates into approximately 300,000 new nodules that will be discovered in the U.S. this year. The overall frequency of malignancy in thyroid nodules is approximately 5%, requiring careful selection of patients for surgical treatment. The panel agreed that all patients with palpable nodules should undergo thyroid US examination and FNA. Ultrasound-guided FNA biopsy is suggested for a nodule yielding unsatisfactory aspirate on initial palpation-guided FNA.

Features of these guidelines include 22 tables that illustrate many key recommendations; the use of evidence-based medicine (EBM) principles, linking the guidelines to the strength of recommendations and grading references for level of evidence (LOE); an emphasis on the utility of ultrasound in thyroid practice, and recommending that all patients with thyroid nodules undergo sonographic examination; an update on thyroid fine-needle aspiration (FNA) biopsy; a review of controversies in thyroid suppressive therapy for benign nodules; issues regarding management of thyroid micronodules; the calcitonin controversy; and use of recombinant human TSH (rhTSH) in benign thyroid disease. The document also contains a useful appendix entitled "Practical Tips."

For an electronic version of the guidelines please visit http://www.aace.com/pub/guidelines.

What Should You Do?

Patients -- if your doctor is unfamiliar with the TRH Stimulation Test, you can consider going to see Dr. Kellman in New York for testing, evaluation and treatment. Or, encourage your local doctors to learn how to perform the test themselves. And practitioners who are serious about diagnosing hypothyroidism can purchase TRH, and administer the tests directly.

Note: The TRH Stimulation Test and protirelin TRH should be used with caution in anyone with:

- Asthma
- Chronic obstructive pulmonary disease
- Heart disease caused by inadequate blood flow to the heart
- Reduced activity of the pituitary gland (hypopituitarism)
- Pregnancy

NOTE: According to Dr. Kellman, protirelin is available from compounding pharmacy Medifare Drug Center, 300 W. Pine St. Blacksburg, SC 29702 800-527-9217 864-839-6384

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Minimally Invasive Thyroid Surgery

Many patients who need thyroid surgery have two new options that can dramatically reduce the size of their neck incisions and speed recovery, according to researchers. The options -- minimally invasive thyroidectomy, and endoscopic thyroidectomy -- are becoming more available from experienced thyroid surgeons.

In a minimally invasive thyroidectomy, the surgeon works through an incision about half the normal size. In the endoscopic approach, video monitoring and a thin, ultrasonic scalpel reduce the incision size by another half.

"Both work well; both have a place in a usual practice," says Dr. David J. Terris, chair of the Medical College of Georgia Department of Otolaryngology Head and Neck Surgery and lead author on research looking at the safety and effectiveness of these newer approaches, published in the March 2006 issue of Laryngoscope.

The study looks at 31 patients who underwent minimally invasive removal of the thyroid gland, which helps regulate metabolic function, and 14 patients in whom pairing the endoscope with the harmonic scalpel, which coagulates as it cuts, enabled the smallest incisions yet for this approach.

Dr. Terris began using a minimally invasive approach to thyroid surgery about two years ago. Today, careful selection of patients based on factors such as the size of the diseased organ and the patient's anatomy enables him to use this approach in most patients.

While most patients with the option prefer a less-invasive approach, the standard approach, which results in a three-to-four-inch incision at the base of the neck, likely always will be needed by some, he says. This includes patients whose gland has grown too large to be removed through a small opening, even with careful manipulation of the gland that typically remains pliable when diseased. In Dr. Terris’ practice, about 30 percent of patients need this approach using a larger incision and moving aside underlying muscle to remove the thyroid.

With one type of minimally invasive technique, surgeons cut through that muscle to gain direct access. During a portion of this surgery, the endoscope enables the surgeon to better see obscure spots such as the very top of the gland and incoming blood vessels. "For the most part we are just looking through a smaller incision," says Dr. Terris.

A newer technique, fine-tuned by Dr. Paolo Miccoli of the University of Pisa, Italy, enables the surgery through an incision less than an inch by pairing the straw-size endoscope with the equally slimmer harmonic scalpel.

"The harmonic scalpel allows us to safely secure blood vessels in small spaces without needing to tie the vessels," Dr. Terris says. "You reach up and ligate vessels through endoscope guidance."

He notes as the incision gets smaller, surgery time typically gets slightly longer and the surgery team gets larger, including someone to operate the camera with the endoscopic approach.

What Are The Normal TSH Ranges During Each Trimester of Pregnancy?

A research article just published in February of 2006 reported on important information for women with thyroid disease who are thinking about getting pregnant, or who are pregnant.

A summary of key points:
- Thyroid disorders -- both overt, and subclinical/borderline -- are associated with pregnancy complications and both short- and long-term health implications for both mother and child.
- The risks are greater for women with autoimmune thyroid disease, even if thyroid levels are normal ("euthyroid.")
- Women with higher TSH levels have a greater than three-fold increase in the risk of very preterm delivery.
- Pregnant women who test positive for antithyroglobulin antibody (TgAb) when they first start receiving prenatal care have a more than two-fold increased risk of very preterm delivery.
- Women who are on thyroid hormone replacement should plan to increase their dosage by 50% to 60% during the first few weeks of pregnancy, and ultimately are likely to need to have their thyroid hormone dosage increased by as much as 50% during pregnancy.

Normal TSH Levels During Pregnancy

According to research, during a normal pregnancy, the following are the TSH normal ranges for an iodine-sufficient population without autoimmune antibodies...

- First Trimester: 0.24 - 2.99
- Second Trimester: .46-2.95
- Third Trimester: .43 - 2.78

Pregnancy Resource

The 30-page Thyroid Guide to Fertility, Pregnancy & Breastfeeding Success will help you understand the important information you need to get pregnant, have a healthy baby, stay healthy yourself, and breastfeed your baby. If you’re a woman struggling to conceive a baby, getting your thyroid problem diagnosed and properly treated may finally be the solution. And, if you’re a woman with a thyroid condition, you’ll have the information to make it possible to have a perfectly healthy pregnancy and baby. To order the Thyroid Guide to Fertility, Pregnancy & Breastfeeding Success for $15 (including shipping and handling in the U.S.), and $25 outside the U.S., call my toll-free line at 1-888-810-9471, or go online to http://www.thyroid-info.com/pregnancyguide.htm
Anti-Psychiatry Scientologist Catherine Bell is Thyroid Cancer Survivors Association (ThyCa) Celebrity Spokesperson

In the "strange but true" department, the Thyroid Cancer Survivors Association (ThyCa) has produced a patient informational brochure featuring as their celebrity spokesperson Catherine Bell. Bell, an actress/model and former star of the show "JAG," is a thyroid cancer survivor.

The strange part? Bell is also very a public and outspoken Scientologist, and is part of the Scientology group called the Citizens Commission on Human Rights (CCHR), which was founded to promote their controversial belief that "psychiatry is a pseudoscience," and to denounce use of any psychiatric drugs -- including drugs for attention deficit disorder (ADD), depression and anxiety. Bell's group claims that psychiatrists "fraudulently promote mental disorders."

If successful, Bell's efforts would result in the denial of public access and elimination of health insurance coverage of any prescription mental health treatments and medicines, and put psychiatrists and their profession out of business.

Since some of ThyCa's members struggle with debilitating depression as a result of their thyroid disease, the question is, what do those ThyCa members think? And what do the physicians and drug companies who serve as advisers and financial supporters to ThyCa feel about a celebrity spokesperson who is so opposed to an entire branch of medicine?

Brooke Shields Opens Up About Her Struggle With Infertility: Encourages Women To Get Informed

In an effort to create awareness about infertility, Brooke Shields has teamed up with Fertility LifeLines, a free and confidential educational service for people with concerns about fertility, encouraging women to know their options and take action early if they are having trouble conceiving. Here, Brooke shares her personal struggle with infertility, including advice for others who may find themselves in a similar situation.

When my husband and I decided to start a family, we never imagined we would have to go through any of this. The idea that I would have any sort of problem getting pregnant was a shock-I just assumed everything would go as planned. Prior to starting the fertility treatments, there was about a year and a half where we tried on our own. When I finally recognized there was a problem, it took about two years of fertility treatments to have a successful pregnancy. It's important for women not to wait too long before talking to their doctor, and it's always good for women to reach out to those closest to them. In addition, Fertility LifeLines (1-866-LETS-TRY / www.fertilitylifelines.com) is a great free resource that can help women understand their options for having a family. It can also help women find a fertility specialist near them.

Fertility LifeLines is a free and confidential educational service offering information and support, 24 hours a day, seven days a week. Trained staff including fertility nurses are on call to help answer questions and provide emotional support through compassionate listening. For more information, call 1-866-LETS-TRY or visit www.fertilitylifelines.com.
Congratulations! I’m excited to be able to share this free issue of *Sticking Out Our Necks, the Thyroid Newsletter*, with you.

This is Mary Shomon, publisher, editor, researcher writer, stamp licker and envelope stuffer (I do it all!) for *Sticking Out Our Necks*.

I’m sure you’ll find that *Sticking Out Our Necks* is unlike any other health newsletter. It’s filled with the latest thyroid news, interviews and articles, information about little-known drug recalls, and the latest research released, along with many other features.

Okay, so why would I give you a free issue of a newsletter I usually charge you to receive?

Well the answer is quite simple: It’s a bribe!

A good natured bribe to convince you to subscribe.

This Jan/Feb 2006 issue is a great issue, jam-packed with information on thyroid treatment, thyroid drugs and more!

*Sticking Out Our Necks* is the only newsletter entirely dedicated to thyroid disease. If you subscribe, you’ll never have to worry about whether key health research on thyroid disease has come out and you’ve missed it. You’ll know that every other month, you’re going to get 12 pages of the latest findings about thyroid disease, delivered to your mailbox, and all you have to do is sit back and read.

Here’s what some subscribers have been saying:

> For the first time since my diagnosis in 1999, I feel like my old self again. Mary, if it wasn’t for you, I would still be settling for a life of under treated Hashimoto’s disease. Instead, I am enjoying high levels of energy and desire. For the first time in years, I am experiencing hopes, dreams, and a vision for what I can accomplish in life. And, just as important, I have the physical, emotional, and mental energy to reinvent my life. What joy I experience when some of my friends and family don’t recognize the new me.
> ~ Heidi H, Asheville, NC
You have given me the confidence to fight for feeling well, a valuable service to anyone, and, surely, a human right. I am now slim, my TSH is rock bottom of range and I have never had as many compliments from people - I look and feel 10 years younger than I did 18 months ago. I know I’m one of the lucky ones, but it isn’t ALL luck: I’ve followed your advice and it’s paid off.
~ Alison L, London, England

What you are doing is commendable. Someone helping others, even while in the midst of their own struggle is a rare gift seldom found in people. I’m sure there are many who appreciate all that you do. Thank you, and I hope your message continues to reach and empower others. ~ Don G.

You did a great job and thank you for all the hard work you put into it. There is so much information that you gave this reader and follower more than her money’s worth.
~ Lauren Y, Milwaukee, WI

A second opinion consultation with a doctor can cost $150 for a 15 minute visit. Just one hardcover book on health can cost you $24.95.

Yet, your total subscription cost for one year is only $25! ($35 non-US)

And this newsletter could easily sell for much more. Many specialized health newsletters cost as much as $179 a year!

But a year’s worth of my newsletter -- that’s 72 pages (and usually more, with special free extra inserts -- filled with news, information and specific help for thyroid patients is only $25 a year.

I currently charge $100 an hour just for a phone consultation. So at the bare minimum, since I spend weeks researching and writing each issue, you’re getting hundreds of dollars worth of thyroid information and advice in each issue.)

$25 is a tiny investment, when compared to the health improvement potential you’ll find in each issue.

AND if you sign up for a subscription to Sticking Out Our Necks print edition during the next two weeks, I have a SPECIAL BONUS for you!

Your bonus? You’ll get TWO FREE EXTRA ISSUES in addition to your one-year subscription!

Simply put...

I know that the information you will receive is going to help you in your efforts to feel well in the coming year.

You know, if you are truly serious about living well despite your thyroid disease...then you won’t want to overlook this opportunity to subscribe, get two free extra issues on your subscription, and start getting information that helps you get well and live well.
Your cost is peanuts compared to all the money you’re probably going to save by not buying health newsletters and magazines that don’t cover the health issues you face day to day. So that means...

You really can’t afford not to sign up!

Don’t put this off. While all of this is fresh in your mind, do yourself a favor and fill out the Order Form and fax it, anytime, 24 hours a day, to 425-977-1175, pop it in the mail, or give us a call during business hours at 1-888-810-9471) to renew by phone. Make sure you mention your 2 free issues!

Or go online to http://www.thyroid-info.com/diet/newsletters.htm for a special URL where you can order online and get your bonus issues.

So before you put this aside, take action now -- chances are too great you’ll forget about all the immense health potential this newsletter can bring you.

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Do yourself a favor, and give yourself the gift of good health, and I’ll include a gift for YOU as well -- 2 additional issues for free!

Better health is just around the corner,

Live well,

Mary

Mary Shomon
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