Botanical Approaches to Hypothyroidism: Avoiding Supplemental Thyroid Hormone

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Hypothyroidism is often unnecessarily treated with thyroid hormone replacement. In these cases, healing doesn’t occur as the thyroid gland in not returned to normal function, nor is the underlying reason for thyroid malfunction addressed. This article offers a successful alternative to thyroid hormone replacement in non-autoimmune hypothyroidism.

The utilization and metabolism of thyroid hormone by the body is affected by multiple factors including liver, adrenal and immune function. Differentiation must be made between true primary hypothyroidism, secondary hypothyroidism, autoimmune hypothyroid conditions, euthyroid sick syndrome, and hypometabolism or Wilson’s disease. These syndromes share a similar symptom picture of fatigue, sleepiness, depression, constipation, dry skin, cold intolerance, coarse and brittle hair, weight gain, and menorrhagia. Differential diagnosis is made by laboratory and physical assessment.

True primary hypothyroidism, where the problem is within the thyroid gland itself, is revealed in laboratory testing where high levels of thyroid stimulation hormone (TSH) may be seen. Thyroid hormone levels may be low, low normal, or even normal, but the high TSH indicates that the pituitary needs to push hard to stimulate the thyroid gland to function. Serum cholesterol, if measured, is also often high in primary hypothyroidism.

Autoimmune thyroiditis is revealed by the presence of high circulating levels of antithyroid (antimicrosomal) antibodies. Other variants include deQuervain’s thyroiditis, which is a self-limiting condition, thought to be of viral etiology. There may be

The Adverse Effects of Herbs Part III

Paul Bergner

Continued from Issues 10(3) and 10(4). Case reports mentioned in the article have been received by correspondence to Medical Herbalism, reported at the medherb.com web site, or fathered from the student body at Rocky Mountain Center for Botanical Studies.

Scutellaria lateriflora (Scullcap)

Scullcap is a benign herb, but it may be commonly adulterated with hepatotoxic species of Teucrium (germander). A large number of cases (more than twenty-four) of germander-induced hepatitis have appeared in France, including one fatality (Larrey et al; Mostefa-Kara et al). France banned germander in 1992, but it continues to be available in other European countries. Germander is used in Europe in weight-loss formulas, but is not generally available in the U.S. marketplace under its own name. However, germander is reportedly a common adulterant of scullcap, and all scullcap stocks should be viewed with suspicion, especially for long-term use and for liver-compromised patients. Germander is such a common adulterant of scullcap that Michael Tierra states in his Planetary Herbology: “It should be noted that most of what is sold as scullcap in this country is germander.” The British Herbal Pharmacopoeia (1983) states that “Scullcap is frequently adulterated or substituted at source with other species of labiates,” and then says that the plant material described as scullcap on the same page is probably derived from a species of Teucrium. Conditions in the marketplace may have changed in the decades since these statements were made, but germander poisonings continue to be reported in the scientific literature (Polymeros D; Laliberte and Villeneuve) and may still be present as adulterants to scullcap.

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thyroid enlargement. Thyroid dysfunction may initially manifest as a hyperthyroid condition that becomes hypothyroid and eventually returns to normal function.

Euthyroid goiter, once common due to iodine deficiency, may be seen on occasion. While etiology due to iodine deficiency is less common, many drugs may block synthesis of thyroid hormone with resultant increase in TSH and glandular enlargement. Increased exposure to environmental radiation also affects thyroid function.

Euthyroid sick syndrome, not a primary disorder of the thyroid gland, results from a decrease in conversion of thyroxine (T4) to triiodothyronine (T3) in peripheral tissues, primarily the liver. Oral temperatures generally run low, below 98 degrees, with 97.8 degrees being average. Stress, liver disease, protein calorie malnutrition, hyperestrogenism, oral contraceptives, hormone replacement therapy, and some drugs, including the commonly prescribed propranolol, may be etiologic factors in the reduced conversion of T4 to the active hormone T3. The usual laboratory assessment of thyroid function will reveal normal values.

Treatment Protocol

Treatment of primary uncomplicated hypothyroidism, euthyroid sick syndrome, and simple uncomplicated goiter is usually effective with the following protocol. Autoimmune conditions are more complicated and may require supplemental thyroid hormone replacement until the antibody attack on the thyroid gland has been addressed. Patients who present with a classic picture of hypothyroidism, backed up by laboratory diagnosis, who do not respond to the foregoing treatment protocol within a few weeks should be tested for autoimmune disease.

Seaweeds

Seaweeds are essential in the treatment of hypothyroidism, primarily because they supply a rich, bioavailable source of iodine, a nutrient essential for the production of thyroid hormone. Deficiency of iodine, once common in inland areas, has been linked to goiter, an enlargement of the thyroid gland. Seaweeds, the dark green leafy vegetables of the sea, are also rich in a wide array of other micronutrients. Although any of the seaweeds may prove useful, Fucus spp. (bladderwack) is considered most specific to the thyroid. Capsules are preferred over tincture, although I have used tincture with good success. Dosage of capsules is 6 to 9 capsules per day (600 mg each), depending upon the severity of the condition.

Patients should be encouraged to include a variety of seaweeds in the diet. Dulse, nori, and wakami are some of the tastier seaweeds to incorporate into stir-fries, soups, nori rolls, or just to snack on. Most of these seaweeds are available dried; fresh seaweed is occasionally found in Oriental groceries. Except for nori, seaweeds should be briefly soaked in boiled water to remove excess salts, before using in soups and stir-fries. Add seaweeds at the end of cooking.

Chondrus crispus (Irish moss) is another sea vegetable that may be used in the treatment of hypothyroidism.

Liver support

Because the liver is the primary organ in which T4 is taken to the active form of T3, liver function should be assessed and treated accordingly. An alternative herb with some action on the liver is almost always part of the protocol, as thyroid metabolism may be stressed by liver congestion. Arctium lappa (burdock root) has come to be a regular in my approach to these cases, but other herbs may be more appropriate, depending on the case; Taraxacum officinale (dandelion) and Mahonia spp. (Oregon grape root) are two others to consider.

Adrenal adaptogens

Adrenal health may be linked to thyroid function, especially in these high stress times where adrenal fatigue of some degree is increasingly common. Some of the scientific literature suggests that high levels of cortisol will at least transiently affect thyroid function. Clinically, the inclusion of adrenal support, where indicated, appears to be an important factor in the successful treatment of hypothyroidism, proving to be, in this author’s experience, of particular significance in Wilson’s syndrome. Any number of adrenal adaptogens may be utilized including Eleutherococcus senticosus (siberian ginseng), Withania somnifera (ashwaganda), Centella asiatica (gotu kola), Aralia spp. (spikenard), Uncaria tomentosa (cat’s claw), and Panax spp. (ginseng). Withania somnifera has been shown in recent research to be supportive to thyroid as well as adrenal function; it has also been shown to promote hepatic antioxidant activity.
Other herbal support

Iris versicolor is specific where thyroid enlargement is present. This author has yet to see Iris versicolor fail in bringing an enlarged thyroid back to normal size. Iris is also an alternative, lymphatic, anti-inflammatory herb and is indicated in hepato-splenomegaly (liver and spleen enlargement) as well as thyromegaly (thyroid enlargement). Potentially toxic, doses should be kept in the range of 1-5 drops, one to three times daily of a 1:2 fresh liquid extract.

Recent research indicates that Commiphora mukul (guggul), a tree resin used in Indian Ayurvedic Medicine, can decrease total cholesterol, triglycerides, LDL and VLDL, while increasing HDL cholesterol. It is believed this lipid lowering effect is a result of a thyroid regulating mechanism. Guggal is a good digestive tonic and has been used in India for a variety of conditions, including arthritis. It is considered a regenerative herb, particularly to nervous tissue.

Capsicum frutescens (cayenne) may be put in small amounts into shoes to stimulate circulation for relief of the cold extremities that often accompany the general chilliness of the hypothyroid patient. A tiny pinch will do the trick as higher doses may cause skin irritation.

Diet and nutrition

Nutritionally, a B complex vitamin should be taken to support liver and adrenal function. Vitamin B12 deficiency has been associated with decreased levels of 5' deiodinase, the enzyme utilized in the metabolism of T4 to active T3 in peripheral tissues. Selenium (200 micrograms daily) is an important cofactor for this same enzyme. The author has noticed in two veterinary cases the coincidence of hypothyroidism with selenium deficiency, where soils are deficient in selenium. Some soils are more concentrated in selenium, however, and care should be taken since excessive selenium, a potentially toxic nutrient, may have the opposite effect of inhibiting conversion of T4 to T3. Copper (1-2 mg daily) acts as a cofactor in the formation of thyroid hormones and in the conversion of T4 to T3. Copper also assists in the breakdown of estrogens, which in excess are inhibitory to the conversion of T4 to T3. L-tyrosine (500 mg three times daily) provides a nutritional precursor for thyroid hormone production. A variety of antioxidants may be considered for dealing with toxic states and heavy metal burden.

High carbohydrate diets, especially refined carbohydrates, can lead to hyperinsulinemia, which in turn leads to decreased levels of growth hormone. Growth hormone is another factor involved in promoting the conversion of T4 to T3 in peripheral tissues. Diets high in soy have been shown to decrease serum levels of free T3 and increase TSH. These levels normalize once soy is removed from the diet. This may be an issue in the occasional vegetarian patient using soy as their major or only source of protein.

In more severe cases, use of proteomorphogens, or thyroid glandulars with hormone removed, may prove efficacious.

Hydrotherapy

Alternating hot and cold applications to the area of the thyroid gland can help stimulate circulation to the area, thereby enhancing function. Place hot cloths over the thyroid area for 3-6 minutes, followed by 30 seconds of cold cloths, repeat 3-5 times in succession, always ending in the cold application. The greater difference in temperature between the hot and cold applications, the more efficacious the treatment will be. This can also be done in the shower, alternating hot and cold water directly over the thyroid gland.

Adjunct natural therapeutics

Manipulation of the cervical spine may be important if fixations in spine motion are part of the patient picture.

An important key to successful treatment of hypothyroidism is the inclusion of homeopathic Thyroidinum 3x to 6x three to four times daily. Without this, many patients respond to treatment slowly, or not at all.

Nothing replaces exercise in sunshine and fresh air. Even cloudy, rainy days provide plenty of sun.

A protocol

In a mild to moderate case of uncomplicated hypothyroidism, a patient may walk out with the following minimal protocol.

3 capsules Fucus spp. two times daily
Tinctures of: Chondrus, Arctium, and Iris (if indicated). Proportions of Arctium and Chondrus will vary according to individual patient needs. Homeopathic Thyroidinum 3x to be dispensed 30-60 drops three to four times daily.
A high quality B complex vitamin with antioxidants and minerals including copper and selenium.

Dietary and lifestyle adjustments are made as needed.

This protocol should be continued over some time as patient’s symptoms continue to improve. Once stabilized for several months, the Thyroidinum 3x may be discontinued while the patient is monitored and kept on all herbs. If the patient does well without the Thyroidinum, discontinue the herbs after another 4-6 months. Fucus capsules and B complex should be continued as part of a life long maintenance program. Fucus doses may be reduced to 2-3 capsules daily for prevention and maintenance.

In addition, thyroid support in the form of 4 to 6 Fucus capsules daily should be considered during the menopausal transition, as this endocrine shift may place an extra stress on the thyroid gland. Seaweed supplementation during menopause has the side effect of providing extra minerals for supporting bone health.

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