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# 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. 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

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# 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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#### Hypothyroidism from page one

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 propranol, 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.* (bladderwrack) is considered most specific to the thy-

roid. 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 officinalis* (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 be utilized including may Eleutherococcus senticosus (siberian ginseng), Withania somnifera (ashwaghanda), 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 alterative, 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 mukal* (guggal), 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 protomorphogens, 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.

#### References

Brinker, Francis, N.D. *Larrea Tridentata, Creasote Bush,* Monograph, Eclectic Dispensatory of Botanical Therapeutics, no year given

Brinker, Francis, N.D. *The Toxicology of Botanical Medicines* 

Drum, Ryan, PhD. "Thyroid Dysfunction", Medicines From the Earth (Official Proceeding), Gaia Herbal Research Institute, 72-75, 1999

Felter, Harvey, Wickes, M.D., *The Eclectic Materia Medica, Pharmacology and Therapeutics*, Sandy, Oregon, Eclectic Medical Publications, 1985

Forsythe WA 3rd. Soy protein, thyroid regulation and cholesterol metabolism. *J Nutr* 125:619S-623S, 1995

Ishizuki Y, Hirooka Y, Murata Y, Togashi K. The effects on the thyroid gland of soybeans administered experimentally in healthy subjects. *Nippon Nibunpi Gakkai Zasshi* 67:622-629, 1991 (article in Japanese)

Kelly, Gregory S., N.D. Peripheral Conversion of Thyroid Hormones: A Review. *Alternative Medicine Review* 5(4): 306-333, 2000

Kohrle J. The trace components – selenium and flavonoids – affect iodothyronine deiodinases, thyroid hormone transport and TSH regulation. *Acta Med Austriaca* 19:S13-S17, 1992

Ladd, Dr. Vasant, and Frawley, David, **The Yoga of Herbs**, Lotus Press, Santa Fe, 1986

McGriffin, Michael, et al., ed, **Botanical Safety Handbook**, CRC Press, N.Y., 1997

Mishra, Laksmi-Chandra, M.D. (Ayur), PhD, Sigh, Betsy B, PhD, Dagenais, Simon BA.: Scientific Basis for the Therapeutic Use of Withania somnifera (Ashwaghanda): A Review. *Alternative Medicine Review* 5(4):334-346, 2000

Panda S, Kar A. Gugulu (Commiphora mukul) induces triiodothyronine production: possible involvement of lipid peroxidation. *Life Sci* 65:PL137-141, 1999

Panda S, Kar A. Withania somnifera and Bauhinia purpurea in the regulation of circulating thyroid hormone concentrations in female mice. J *Ethnopharmacol* 67:233-239, 1999

Panda S, Kar A. Changes in thyroid hormone concentrations after administration of ashwagandha root extract to adult male mice. *J Pharm Pharmacol* 50:1065-1068, 1998

Sherman, J. *The Complete Botanical Prescriber,* Third edition; 1993

Tilgner, S. Herbal Medicines from the Heart of the Earth. Wise Acres Press, Inc., Creswell, Oregon, 1999 Weiss, Rudolf Fritz, M.D., Herbal Medicine, Beaconsville, England, Beaconsville Publishers, LTD

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#### Adverse Effects continued from page one

In recent years, hepatotoxicity of herbal formulas has been attributed to valerian (MacGregor et al), scullcap (Macgregor et al; Moum et al; Weeks and Proper), and mistletoe (Harvey, Colin-Jones). In each of the preceding cases, however, the indicted herbs appeared in formulas that also contained scullcap, the only herbal common denominator in the articles. If the scullcap was, in fact, germander, then that single herb could be responsible for all the above cases of hepatotoxicity.

#### Hypericum perforatum (St. Johnswort)

Hypericum has traditionally used as a liver herb (Chevallier, Kneipp). In a November 1989 trial of hypericum in 24 AIDS patient, elevated liver enzymes were improved in "amost every case." (Bergner 1990). Recent clinical evidence shows that hypericum powerfully increases liver biotransformation of many hormones and drugs (Piscitelli et al; Ruschitzka et al.). When they are taken along with hypericum, this may create an effective overdose or underdose of pharmaceutical drugs, depending on whether they are activated or detoxified by the liver.

Photosensitivity to hypericum has been noted in animals that graze on the plant, and has been seen occasionally in humans (Bergner, 1995). One patient took the tincture in doses of up to one-half ounce daily for six months. A severe rash and photosensitivity occurred, which persisted for several months after discontinuation of the herb. In the early 1990s, when hypericum was rumored to inhibit HIV, large numbers of AIDS patients took various forms of the herb, including tinctures and standardized extracts containing concentrated hypericin, the constituent responsible for photosensitivity. A practitioner in Connecticut reported seeing frequent photosensitivity appear in AIDS patients taking the herb (Brett). German phytotherapist R.F. Weiss recommends that patients avoid intense sunlight and the German Commission E states that photosensitivity may be more likely in fair-skinned individuals (Blumenthal et al.), though Brett reports the photosenstivity appeared commonly in dark skinned Hispanic patients in her clinic.

Herbalist Howie Brounstein posted a discussion of the issue of hypericum and photosensitivity at his web site in the mid 1990s, before hypericum extracts became popular in the U.S. He concludes that photosensitivity is not a serious issue for humans (Brounstein). He had never received correspondence on the issue until after popular-

ization and mass marketing of concentrated extracts of hypericum, and subsequently receives several reports a month of photosensitivity (Brounstein, 2001). An employee at an industry sponsored hot-line for adverse herbal effects reports that the most common complaint received is for "rash" after taking St Johnswort extracts (Anonymous).

The concentrated extracts taken alone have produced excitement and anxiety in some patients (3 reports) and full blown serotonin syndrome with panic attacks in interaction with antidepressant drugs (2 reports). Severe anxiety may occur with hypericum extracts if given during the wash-out after discontinuation of pharmaceutical antidepressants; one practitioner reports a half-dozen cases.

#### Angelica sinensis (Dang qui)

The most commonly reported side effect for angelica is increased menstrual bleeding (several dozen case reports). Herbalists applying the herb for supposed hormonal effects without consideration for this effect may induce menorrhagia. This is consistent with its use in Chinese medicine as a blood tonic and circulatory stimulant. Dang gui may also exacerbate heat symptoms and should be used cautiously in exhausted patients with constitutional heat signs.

#### Mahonia aquifolium (Oregon grape)

Like other bitters, mahonia may exacerbate digestive pain in conditions of hypersecretion. The symptoms are typically mild, and do not occur in all patients, but if they appear, the medicine should be discontinued or modified in formula. Berberine in mahonia or other berberine-containing plants may cause jaundice in babies born to women taking the herbs (Chan).

# Chrysanthemum parthenium (Feverfew)

Feverfew is traditionally used as an emmenagogue, but it may induce menstrual pain in some migraine patients when they had not experienced it previously (2 case reports).

# Symphytum off. (Comfrey)

Comfrey and other plants containing pyrrolizidine alkaloids (PA) may produce hepatic veno-occlusive disease (HVOD). The alkaloids are biotransformed into toxic metabolites by the healthy liver, which damage and cause obstruction of the small veins in the liver, resulting in cirrhosis. Several hundred different

PA occur in nature in a variety of plants, and have a wide range of potential toxicity. Despite the relatively low toxicity of the chief alkaloids in *Symphytum officinale*, the most commonly available medicinal plant, six cases of Symphytum-induced HVOD, including one fatality, have been reported in the scientific literature. The risk is apparently low (Bruneton), and is most serious for fetuses and young children due to their lower liver mass. For a full review see Bergner, 1989.

Topical use of comfrey and some other wound-healing plants can 'seal in' a suppurating infection. One case of septicemia following application of a comfrey poultice to a burn was observed at the clinic at Rocky Mountain Center for Botanical Studies. The burn on the hand appeared to be healed, with streaks of inflammation radiating from it, and the infection spread up the arm to affect the whole system.

#### Trifolium pratense (Red clover)

Red clover may produce bleeding irregularities when taken alone. One patient not on anticoagulant medication developed bleeding problems after about 30 days of use as a beverage.

Trifolium, when fermented, as commonly occurs during drying, may develop blood-thinning coumarin-derivatives

#### Cimicifuga racemosa, (Black cohosh)

The classic side effect for Black cohosh is the frontal headache. This is frequently seen and may occur with normal medicinal doses of the tincture. It may be more common with concentrated standardized exctracts. The Eclectic Harvey Felter noted this effect during the early 20<sup>th</sup> century, and adds: "Large doses impress the cerebrum decidedly, and probably other parts of the nervous system not yet definitely determined—occasioning vertigo, impaired vision, pupillary dilatation, nausea, and vomiting of a mild character, and a reduction in the rate and force of the circulation. A condition closely resembling delirium tremens is said to have been produced by it" (Felter).

# Ligusticum porteri (Osha root)

Osha root is irritating to a dry cough if used alone. This is a frequent side effect observed in student population at Rocky Mountain Center for Botanical Studies. It may be easily countered by adding a moderating herb, such as licorice, in formula.

#### Lobelia inflata (Lobelia)

Nausea is the most common side effect of lobelia. Some patients experience queasiness with as little at 10-15 drops of the tincture. The herb was historically used an an emetic, but larger doses are usually required to induce vomiting – usually teaspoon to tablespoon doses repeated several times.

Despite frequent mention of potentially lethal side effects to lobelia both in allopathic and herbal texts, no firm evidence exists in the scientific literature or historical literature for such dangers. Samuel Thomson was alleged to have killed a patient under his care with excessive amounts of lobelia in 1809. The patient suffered from an infectious disease which had killed a relative in the household the week before, and, after Thomson discontinued treatment and judged the case to be hopeless, the patient was under the care of an allopathic doctor for the last twenty hours of his life. Because lobelia's effects are rapid and relatively short-lived, the patient likely died of his illness or from the allopath's treatment. Thomson was not allowed to present his defense, and acquitted of the charges through a directed verdict. Similar cases were filed rarely until the mid-1850's but no alleged case appears in any literature since that time.

A review of fourteen contemporary texts on plant toxicology failed to reveal any evidence of toxicity of lobelia (Bergner, 1998). No case of outright toxicity appears in the primary scientific literature of the 20<sup>th</sup> century.

Lobelia may be contraindicated in combination with some pharmaceutical drugs. A 48 year-old woman with bronchitis and asthma was prescribed orciprenaline sulfate (a sympathetomimetic agent with beta-adrenergic activity) by inhaler, while simultaneously smoking a mixture of lobelia and Datura stramonium (McLaren). She collapsed shortly after taking two inhalations of the drug and then smoking the herbal mixture for five to ten minutes. Her symptoms were paleness with slight cyanosis, moist skin, dilated pupils, and voiding of the bladder. The fatality cannot be ascribed to lobelia, but would appear from the symptoms to be due to an interaction between they beta-adrenergic drug and datura. Datura contains hyoscyamine and atropine, both strong anticholinergic agents, which would be contraindicated for simultaneous use with sympathetic stimulants. The role of lobelia, if any, is unclear. The case report also states that the woman had smoked the lobelia-datura preparation alone for 20 years without any adverse effects.

The activity and supposed toxicity of lobelia is due to its constituent lobeline, present in lobelia in quantities between 0.26 and 0.40 %. The dose allegedly given by Samuel Thomson contained at most about 10 mg of lobeline, by the oral route. However, a dose of lobeline hydrochloride of twice this size (20 mg) was administered by conventional physicians by the intramuscular route as respiratory stimulant suitable for use during the mid-twentieth century (Gisvold; Osol and Farrar). Lobeline sulfate for oral use was sold without prescription in the U.S. as recently as 1990 as a smoking deterrent (Anonymous, 1990).

Because it powerfully sedates the respiratory system and cough reflex, lobelia is contraindicated traditionally in congestive heart failure.

#### Serenoa repens (Saw palmetto)

Traditional Eclectic sources mention that saw palmetto may cause breast tenderness and swelling in males or females (Bergner 1997). One case has been seen in each gender at the Rocky Mountain Center for Botanical Studies clinic.

#### **Leonurus cardiaca (Motherwort)**

Motherwort may powerfully alter the menstrual cycle, an effect reported by about a dozen patients or students at the Rocky Mountain Center for Botanical Studies. In one patient a normally regular cycle was shortened from 28 days to 17 days after several weeks taking 2-3 droppers of motherwort tincture per day.

Motherwort is often used in combination with Lycopus (Bugleweed) for treatment of hyperthyroid conditions. German phytotherapist R. F. Weiss suggests that the effects of motherwort in such cases are not due to direct thyroid effects, but rather to a cardio-sedative effect on the palpitations that often accompany hyperthyroid. Reputed effects on thyroid are probably only symptomatic effects on heart via the cardio-sedative effects (Weiss; Milkowska-Leyck et al.). It is thus probably not contraindicated in cases of hypothyroid.

# Calendula off (Calendula)

Topical application of calendula has strong wound-healing properties. It should not be used for suppurating wounds, since it may seal the infection in.

#### Ephedra sinensis (Ma huang)

Ephedra and its alkaloid ephedrine have adrenergic effects, with well-known side effects. In Asian medi-

cine, it is considered a "surface relieving" herb, meaning in part that it promotes sweating. People with "deficient" conditions (in the traditional Asian sense) have a symptom picture of low energy, a tendency to dehydration, easy sweating, insomnia, and redness of the face and hands. Unless part of a specific Chinese formula that moderates its effects, ma huang is inappropriate for people with this picture, even those with allergies or other conditions for which it might normally be given. The deficient patient who uses it for energy boost or mental clarity may experience devastating exhaustion. I have 3 case reports of patients who collapsed within within thirty days of taking daily doses of ma huang. Two were hospitalized, and the third experienced severe prolapse of her pelvic organs.

Ephedra may cause significant health problems and possible death if taken during pregnancy or lactation, heart or thyroid disease, high blood pressure, diabetes, or if taking a variety of prescription drugs. Most of these conditions—early pregnancy, heart disease, thyroid disease, high blood pressure, and diabetes—are common "silent" conditions, undiagnosed and unknown to the individual. If herbal products con-

Gaia garden

taining ephedra are sold to the general public for reducing weight or boosting energy, they will be consumed by people who are obese and/or fatigued—and many of these groups, especially, with silent conditions.

Ephedra, when abused for its psychotropic effects, may induce psychosis similar to amphetamine psychosis (1 case reported).

#### **Lomatium dissectum (Lomatium)**

Lomatium may cause a whole body rash that does not respond to topical or systemic steroids. One case was produced with lomatium as a part of a larger formula after consuming a total dose of no more than 5 ml lomatium in a three day period.

Twelve case reports have been collected from physicians or professional herbalists that clients developed a rash after taking various forms of the herb *Lomatium* dissectum. The worst case occurred when a 36 year old female took three 500 mg capsules of freeze-dried lomatium during the course of a day. In the evening she developed a full head-to-toe rash. She went to the hospital emergency room, and was given steroids in an unspecified form for the rash, which had no effect on the rash. She was kept for observation overnight and released the following day when the rash began to improve. A man developed a similar full body rash after taking about twice the dose above over a period of 8 hours. In summer 2002, another woman developed a rash after chewing lomatium root a few times a day. She was hospitalized and kept for observation for 3 days after failure to respond to steroids. Several lozenges of the powdered herb have produced a less severe rash, and one practitioner reports five cases of patients developing less severe rashes after taking tinctures in which lomatium was an ingredient in combination with other herbs.

Naturopath John Bastyr used the herb in tincture form for a half-century to treat severe influenza and viral pneumonia. He noted that the appearance of the rash was used as a sign to lower the dose of the herb rather than to discontinue it, considering it a critical therapy in these serious conditions (Bastyr). The nature of the rash has not been determined, but, according to the first case above, is not inflammatory in nature. A photo of the rash may be seen at http://www.ibiblio.org/herbmed/picures/misc /lomatium-rash.jpg [9-29-2002]

#### References

Anomymous. *Physicians Desk Reference for Non-Prescription Drugs*. Oradell, New Jersey: Medical Economics, 1990

Anonymous. Personal Communication. May 2001 Bastyr. Personal Communication. Summer 1986.

Bergner, P. Symphytum: Comfrey, coltsfoot, and pyrrolizidine alkaloids. *Medical Herbalism* 1989; 1(1):1,3-5

Bergner, P Hypericum and HIV. *Medical Herbalism* 1990; 2(1):1,3,6

Bergner, P. Hypericum: Photosensitivity and St. Johnswort Medical Herbalism 01-31-95 6(4): 10

Bergner, P Serenoa: Eclectic materia medica for Saw Palmetto **Medical Herbalism** 10-31-97 9(3): 1, 16-17

Bergner, P. Is lobelia toxic? *Medical Herbalis*m 10(1-2):1,15-17,20-25; 1998

Blumenthal, M. The complete German Commission E Monographs: Therapeutic Guide to Herbal Medicines. Boston: Integrative Medicine Communications, 1998

Brett, J. Personal communication. October 1994. British Herbal Medicine Association. **British Herbal Pharmacopoeia.** West Yorks, UK 1983

Brounstein, H. Http://home.teleport.com/~howieb/treats/hyper.html [9-28-2002]

Brounsetin, H. Personal Communication. May 2001.

Bruneton, Jean Toxic Plants Dangerous to Humans and Animals. Paris: Editions TEC and DOC, 1999

Chan E. Displacement of bilirubin from albumin by berberine. Biol Neonate. 1993;63(4):201-8

Chevallier, A. *Encyclopedia of Medicinal Plants*. New York: DK, 1996

Felter, H. The Eclectic Materia Medica, Pharmacology, and Therapeutics. Portland, Oregon: Eclectic Medical Publications, 1985 (reprinted from 1922 original)

Gisvold, O., and Doerge, R.F. **Textbook of Organic Medicinal and Pharmaceutical Chemistry.** Philadelphia: Lippencott, 1971

Harvey J, Colin-Jones DG. Mistletoe hepatitis. Br Med J (Clin Res Ed). 1981 Jan 17;282(6259):186-7

Kneipp, Sebastian. **My Water Cur**e. 62nd Edition [translation reprint]. Pomeroy Washington: Health Research, 1972

Laliberte L, Villeneuve JP. Hepatitis after the use of germander, a herbal remedy. **CMAJ**. 1996 Jun 1;154(11):1689-92

Larrey D, Vial T, Pauwels A, Castot A, et al. Hepatitis after germander (Teucrium chamaedrys) administration: another instance of herbal medicine hepatotoxicity. *Ann Intern Med* 1992 Jul 15;117(2):129-32

References continued on back page

# **Traditional Medicine**

# Premenopausal menorrhagia

Cascade Anderson Geller

#### **Client overview**

Female, 36 y.o. one of the middle siblings of many children, single, occupation: R.N. at hospital, last physical exam was a number of years ago, but had recent gyn exam and consult for bleeding. Lifestyle details: works 30 hours a week, active: bicycling, hiking, dancing, jogging, traveling outside U.S., involved: social service projects, many friends and social activities, wants to change careers, sleeps different amounts of time depending on social calendar but generally gets enough sleep, reads 1-2 hours per day, smokes marijuana and drinks wine occassionally, drinks coffee daily, dates but very selectively.

#### Signs and symptoms

Has had a variety of gynecological problems over the years: vaginal infections, fibrocystic breasts, aggravating PMS symptoms including painful periods, irregular menses, and now menorrhagia worsening with each cycle x 6 months. Other complaints include facial breakouts since adolescence.

#### **Medical history**

Has followed straight medicine route always but interest in other cultures spawned interest in more wholistic methods. Currently taking birth control pills x 3 months to control menorrhagia, but they haven't worked. Had a D. and C. last month, but this month bleeding is worse. Pelvic exam shows no fibroids or CA. Will stop the pills now. Never wanted to take them but was desperate. Bleeding is weakening her energy and causing a big hassle. Can saturate 3 pads an hour and bleeding is lasts 2 weeks.

#### **Diet**

No one has talked about diet or supplements to her. Never takes vitamins. Wonders if she might feel better with them. Eats a very omniverous, gourmet to organic simplistic diet depending on situation and feeling. Loves vegetables and good cooking, chocolate, and coffee. When she cooks, it is good and healthy. Eats on the run, however, frequently. Controls her food intake to stay slim by skipping meals to compensate for gourmet treats. Did not complete a diet diary.

Feels that food is great, but isn't really convinced that diet is that important to health. Drinks water occassionally unless she is athletic, then regularily. Likes gatorade-type drinks and power bars.

#### My summary

I like this woman. She is vibrant and alive and super intelligent. She has lived on the edge with so much activity during her twenties that she is showing wear and tear in her thirties. She is used to doing what she wants when she wants. Wishes her body would just "get it together." Isn't really into a full consultation. Thinks our generation is overly consumed with health. Wants to "cut to the scene" and get this bleeding stopped. I want to convince her to eat better consistently, drink more water, etc. She is polite but wonders what herbs I have to "dry up this bleeding." Once that is done, maybe then we can get into health habits. I agree.

#### 2/8/86 Herbal treatment

**Decoction**: She loves to make tea and drink warm liquids.

Formula Number One: Stop Bleeding

Dioscorea villosa root (wild yam)

1/2 oz g.u. tonic

Cimicifuga racemosa root (black cohosh)

1/2 oz g.u. tonic

Angelica sinensis root (dong quai)

1/2 oz g.u. tonic

Urtica dioica tops (nettles)

1/4 oz building

Mix together in a jar. Shake well each time and use 2 heaping tablespoons mix in 2 1/2 cups of water. Simmer covered for 10 minutes and steep til cool. Strain and press well. Drink in 2 doses in A.M. And P.M. until gone.

I also ask her to eat more dark greens. 1 cup cooked and 1 cup raw everyday. She declares she will stop the B.C. pills. I also suggested she refrain from jarring, overly aggressive activities during bleeding times. She thought this was archaic, but interesting.

#### 2/15/86

Used 3 cups per tea a day. Didn't figure it would hurt and wanted to "get on with it." Thought it tasted pretty bad. Went through herbs quickly. Bleeding

Continued on page seventeen

# **Traditional Medicine**

#### **Tree Medicine from Tommie Bass**

Crellin, John K, and Philpott, Jane. Herbal Medicine Past and Present. Volume I Trying to Give Ease. Durham, North Carolina: 1990 Crellin, John K, and Philpott, Jane. Herbal Medicine Past and Present. Volume II A Reference Guide to Medicinal Plants. Durham, North Carolina: 1990

Appalachian herbalist Tommie Bass studied and practiced herbalism from the 1920s through the 1980s. Anthropologists Crellin and Philpott produced this two-volume documentary of his work based on interviews during the 1980s, shortly before Bass's death. The greater part of the book is commentary, reviews of historical and official uses of various herbs, and the science of their constituents.

Perhaps most interesting in Volume 1 to the student of herbalism is the section on history. Bass gives his account of how began to make money wildcrafting Appalachian herbs for pharmaceutical and mail-order herb companies. He tells how he learned clinical uses from herbalists and textbooks, eventually opening a health food store, where he established his practice. His story tells how exclusively regional folk herbalism was virtually eliminated in Appalachia by the 1920's. Bass's most significant early mentor practiced based mostly on what he had learned from Meyer's The Herbalist a publication circulated by the mail-order herb company Indiana Botanic Gardens. That text is highly influenced by Thomsonian, Physiomedicalist, and Eclectic herbalism. Bass relates the he himself learned the uses of many herbs from the catalogues of the companies that he wildcrafted herbs for, in a era when most pharmaceutical companies sold herbal tinctures and herbal formulas. By the end of his career, pharmaceutical companies had dropped their herbal preparations, but the health food and herbal industries had emerged as major economic forces. Some of Bass's later uses and recommendations are colored by that influence. He states that Kloss's Back To Eden, a text generally considered poor by modern clinical herbalists, is one of his most important influences.

As a practicing herbalist and health food store owner for more than five decades, Bass's personal experience is formidable, and this is covered in depth in Volume 2, with sections on each herb that he used. I find this section fascinating, because some uses are slightly different than we find in modern herbals. Junipers are used for the urinary tract, as we would expect, but also for colds and coughs. Buckeye (*Aesculus spp.*) is used not for varicosities, but in salves for arthritis. Fringe Tree bark (*Chionanthus virginicus*) is used for liver complaints, but also as a spring tonic and for diabetes, and as a wash for burns or sores. Hawthorne is named as a heart remedy, but Bass himself used it as a tonic when he felt "run-down."

Herbalist Ben Jones has compiled Bass's first-hand accounts of his hands-on knowledge of the herbs for the North American Institute of Medical Herbalism, culling this from the much larger volume of history, commentary, and documentation in the texts. The accompanying table shows how Bass uses various trees and their parts as medicine. The Latin names are those assigned by Crellin and Philpott to the herbs Bass described by common name.

**Paul Bergner** 

#### Alder (Alnus serulata)

"... purifies the blood." Alterative. "... use the wash for skin conditions like eczema and swellings. It's good for sore throats and colds in general."

#### Apple Tree (Malus domestica)

He uses fresh apples for constipation, and dried (cultivated or crab apple) for diarrhea. The bark (or leaves in the summer) are used for a sour or burning stomach. The tea also stimulates the appetite, and helps arthritis. Apple cider vinegar acts as an appetite stimulant and a cooling drink. Bass also uses it externally for diaper rash, prickly heat, poison ivy, and as a poultice with white oak bark for the veins.

#### Beech (Fagus grandifolia)

Bass indicates that it contains a lot of tannic acid, so that it is good for rheumatism, acne, and mouth sores. It is also a tonic.

#### Birch, River (Betula nigra)

River birch acts as an astringent on sores and the such.

#### **Boxwood (Buxus sempervirens)**

It's a tonic and laxative.

#### **Buckeye (Aesculus spp.)**

The seed is used in salves for rheumatism.

#### Cedar (Juniperus virginiana)

He indicates that the oil is good for the kidneys, rheumatism, colds, and coughs. It is also used as a tonic.

#### Chestnut (Castanea dentata)

"The leaves were used in cough medicines; they're astringent and safe. They are highly recommended too for what they used to call dropsy, they call it 'fluid' now."

#### **Cucumber Tree (Magnolia acuminata)**

He claims that it is the best rheumatism medicine.

#### Elm; Slippery Elm (Ulmus spp.)

Bass says it is best to chew the bark for coughs and colds, and for the stomach. He also employees it in his salves.

#### Fringe Tree (Chionanthus virginicus)

Bass makes a tea for any kind of liver complaint or gall bladder problem. He also uses as a tonic in the spring of the year when you might have a cold, and states: "It is the best thing in the world for sugar diabetes." The tea can also be applied as an antiseptic wash for sores or burns. It may also be taken for eczema or acne.

# Hawthorn (Crataegus spp.)

He uses it as a tonic for the heart and the blood. He takes it when he feels run-down.

# Hickory (Carya spp.)

Hickory is astringent; thus he uses it for sore mouths and ulcerated stomach. It is also a tonic that is highly recommended for coughs and colds.

# Holly (Ilex opaca)

The root bark can be used as a tonic for coughs and pleurisy.

### Linden; Basswood (Tilia spp.)

A tea of the bark or flowers can be used for coughs and colds.

#### Maple, Red (Acer rubrum)

"I believe it has a tendency for women and even men to help them with the change of life. It makes a good tea. It has minerals in it."

#### Oaks (Quercus spp.)

"I've recommended it for varicose veins. You make an ooze, or tea. An ooze is a name we generally use only for teas of oak bark and red sumac. It's got tannic acid, and I believe it would be good for rheumatism. It has some other uses, too. I cured my smelly feet by dipping the feet in it every day for about a week."

#### Peach (Prunus persica)

He uses peach leaf tea for sick stomach in the morning, especially for expectant mothers. "It is mild and can be used for children, but a double dose will act as a laxative." It has also been used to calm the nerves. It is a great hair wash. And peach pit oil is used for earaches.

#### Pine (Pinus spp.)

"The pine tops are used in cough syrups. Another way is to take pine tops and pour scalding water over them and breath the steam to relieve the chest. The country people use to drink pine top tea every spring and fall to prevent colds. It's a spring tonic." "Turpentine is right down the alley. The oil is made from the pine rosin." He uses turpentine for the kidneys, coughs and colds, aches and pains, and worms. Pine resin balls were chewed for sore throats. The resin was also used for kidneys, and put into salves. Pine tar was used in poultices and salves, especially for chest colds.

#### Tulip Poplar (Liriodendron tulipifera)

It is one of Bass's favorite tonics. The root bark is used for rheumatism and as a diaphoretic. It is used to increase the appetite and digest food.

#### Willow (Salix nigra)

"It's the same as aspirin, brings down fevers, but you sometimes have to make a strong tea. It's good to put in cough and cold medicine. Some old-timers used it in a poultice for risings and a tonic." slowed in 2 days but still wearing a tampon. Hates pads but sometimes wears both tampon and pad or doubles pads in heaviest times. No pain. Feels less weak and more energized. Wonders if there isn't a anti-hemorrhagic formula that will really "nip this in the bud."

#### Formula Number Two: Stop Bleeding

Cytisus scoparius tops (broom)

1/2 oz uterine hemostatic, oxytocic

Salvia officinalis tops (sage)

1/2 oz hemostatic

Dioscorea villosa roots (wild yam)

1/2 oz g.u. tonic

Glycirrhiza glabra rhizome (licorice)

1/2 oz adaptogen, adjuvant, flavoring

A. uva ursi leaf (uva ursi)

1/2 oz g.u. flagger, hemostatic

Rubus ideaus tops (raspberry)

1/4 oz g.u. tonic

Cnicus benedictus tops (blessed thistle)

1/4 oz

Cinnamomum spp.. Bark (cinnamon)

1/4 oz uterine hemostatic

Capsicum fruit (cayenne)

1/8 oz hemostatic

Mix all together in a jar. Shake well before using. Use 3 heaping tablespoons in 3 1/2 cups water. Simmer covered for 10 minutes and steep til cool. Strain and press well. Drink in 3 doses one in A.M. and two in P.M. until bleeding stops and then continue for 3-4 days or until completed formula. Call when either of these events occur.

When she discovered that cayenne was a hemostatic, she began to eat whole chilies, which she loved. Bleeding substantially slowed three hours after the first cup. By the second day, bleeding had mostly subsided with just a trace of browninsh discharge. She continued drinking the blend for 7 days.

#### 2/20/87

Follow-ups: Phone consult: After discontinuing the B.C. pills, she began bleeding again, but it was unremarkable. Then she didn't cycle until 6 weeks when she had a "normal" menses. The rest of the year she was cycling regularily and again during the winter, she began to bleed heavily. She used her herb blend saved

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#### Menorrhagia continued from page

from the first batch and bleeding quickly stopped. I got these details when she called for a refill of Formula Number 2. I suggested that we do another formula as a tonic and review dietary and lifestyle factors. She thanked me, said she'd pay me extra for the herbs, but didn't want to "work on anything right now." I declined the tip, wished her well, and blended the herb formula.

#### **Commentary (Paul Bergner)**

This case is remarkable in that Cascade did *not* use the two most common herbs prescribed today for menorrhagia: achillea (yarrow) and capsella (shepherd's purse). Both of these are well-suited for acute relief of excess bleeding, and either one can completely suppress normal menses if taken in larger doses. The broader tonification demonstrated in this case is necessary for more permanent relief. The original formula may not have been as effective because it contained Angelica sinensis (dang qui). A. Sinensis alone can induce heavier bleeding through acute emmenagogue effects, or through tonification and "moving" of the blood (in traditional Chinese terms). I've seen enorrhagia induced by A. Sinensis after about three weeks of continuous use of small doses of the Chinese patent formula Dang Gui Gin.

#### Adverse effects references from page

MacGregor FB, Abernethy VE, Dahabra S, Cobden I, Hayes PC. Hepatotoxicity of herbal remedies. BMJ 1989 Nov 4;299(6708):1156-7

McLaren G. Sudden death in asthma. *Br Med J* 1968 Nov 16;4(628):456

Milkowska-Leyck K, Filipek B, Strzelecka H. Pharmacological effects of lavandulifolioside from Leonurus cardiaca. *J Ethnopharmacol*. 2002 Apr;80(1):85-90 Mostefa-Kara N, Pauwels A, Pines E, Biour M, Levy VG. Fatal hepatitis after herbal tea. *Lancet*. 1992 Sep 12;340(8820):674

Moum B, Aukrust P, Schrumpf E, Mork T, Mathisen O, Elgjo K. Natural products can be hazardous to health *Tidsskr Nor Laegeforen*. 1992 Apr 10;112(10):1308-11. Review

Osol A., and Farrar G.E.. *The Dispensatory of the United States of America*. The 24th Edition. Philadelphia: J.B. Lippencott Company, 1947

Piscitelli, SC, Burstein AH, Chaitt D, Alfaro RM, Falloon J. Indinavir concentrations and St John's wort. *Lancet* 355(9203)

Polymeros D, Kamberoglou D, Tzias V. Acute cholestatic hepatitis caused by Teucrium polium (golden germander) with transient appearance of antimitochondrial antibody. *J Clin Gastroenterol.* 2002 Jan;34(1):100-1

Ruschitzka F, Meier PJ, Turina M, Lüscher TF, Noll G. Acute heart transplant rejection due to Saint John's wort. *Lancet* 355(9203)

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