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Treatment of Hyperthyroidism: Western Medicine vs. Traditional Chinese Medicine

by Dr. John Chen, Ph.D., Pharm.D., O.M.D., L.Ac.

Hyperthyroidism is an endocrine disorder that is characterized by an overactive thyroid gland with increased levels in secretion and circulation of the thyroid hormone. The thyroid gland is located in the neck and has an enormous impact on the health and well-being of a person. It secretes the thyroid hormone, which in turn regulates human growth, maturation, and the speed of metabolism. Optimal functioning of the thyroid gland is dependent on several factors: proper functioning of the hypothalamus and the pituitary gland, adequate supply of iodine, and proper conversion of thyroxine (T4) to triiodothyronine (T3). When one of these factors is out of balance, the affected individual will begin to experience either hyperthyroidism or hypothyroidism (consequence of a deficient quantity of thyroid hormone).

Hyperthyroidism is a rather common disorder. In general, it occurs more frequently in young adults between the ages of 20 and 40, and is found more often in women than in men with an approximate ratio of 4:1.

Western Medicine

Etiology

There are several causes of hyperthyroidism. The most common underlying cause of hyperthyroidism is Graves' disease, often called diffuse toxic goiter because the entire gland is enlarged. Graves' disease is an autoimmune disease in which the patient's immune system turns against the patient's own thyroid gland. The antibodies made by the patient's immune system attach to specific activating sites of the thyroid gland causing the gland to produce more thyroid hormones, therefore resulting in hyperthyroidism.

Other less common causes of hyperthyroidism include inflammation of the thyroid gland, also known as thyroiditis, a single nodule within the thyroid gland, and excessive intake of T4, T3, or any available forms of thyroid hormone.

Diagnosis

Laboratory blood tests assessing plasma levels of thyroid-stimulating hormone (TSH), T4, and T3 can confirm or rule out the diagnosis of hyperthyroidism. For a positive diagnosis to be made levels of T4 and/or T3 must be high, while levels of TSH is generally low. Other special tests, such as iodine thyroid scan, are occasionally used to distinguish the different causes of hyperthyroidism.

Clinical Manifestation

Hyperthyroidism is characterized by the slow onset of vague signs and symptoms of sympathetic system excess, such as tachycardia and/or palpitation, increased blood pressure, low-grade

fever (usually no higher than 38°C / 100°F), and perspiration. Other symptoms include fatigue, nervousness, possible arrhythmia, irritability, fine tremors of the fingers, aversion to heat, poor sleep, increased appetite but with weight loss, and frequent bowel movements. In addition, some patients may experience amenorrhea, decreased menstrual discharge, or impotence.

Hyperthyroidism can also cause changes in the eyes. The patient may have unilateral or bilateral swollen and bulging eyes, increase tear formation, irritation of the eyes, and unusual sensitivity to light.

Treatment

The two major conventional modalities for treatment of hyperthyroidism are drugs and surgery. Drug treatment focuses on inhibiting the production and release of thyroid hormone. Thionamide-type drugs, such as propylthiouracil (PTU) and methimazole (Tapazole), are often prescribed to inhibit the synthesis of thyroid hormone. However, since they do not affect the storage or release of thyroid hormone, there is a marked delay in the onset of their action. Furthermore, the use of propylthiouracil (PTU) and methimazole (Tapazole) are associated with a significant number of side effects, including (but not limited to) agranulocytosis (0.5%), rash, arthralgia, edema (>2%), hepatitis, lymph node swelling, and loss of the sense of taste. Patient's intolerance of these adverse reactions is a key reason why these drugs are not frequently prescribed.

Since none of the drug treatments offer an ideal solution, doctors and patients often opt for more invasive procedures using radioactive iodine or surgery. These procedures work by physically destroying or removing the thyroid gland, thereby reducing its capacity to produce thyroid hormone. Though these two procedures are initially effective, they are not without risks. Radioactive iodine treatment causes massive destruction of thyroid tissue, and the subsequent release of thyroid hormone may trigger a "thyroid storm." Surgery, if not performed properly, may cause hemorrhage and damage to the laryngeal nerve and local tissues. Furthermore, while surgery or administration of radioactive iodine may treat hyperthyroidism, they often lead to long-term complications, namely, hypoparathyroidism and hypothyroidism. Unfortunately, even if radioactive iodine or surgical treatments are performed with 100% precision, many patients who show normal thyroid levels after treatment will eventually develop hypothyroidism, and subsequently must take thyroid supplements for the rest of their lives.

Traditional Chinese Medicine

Etiology

According to Traditional Chinese Medicine, hyperthyroidism is a combination of qi and yin deficiencies, Liver fire uprising, and phlegm stagnation. Qi and yin deficiencies are the fundamental causes, while the symptoms and signs show Liver fire and phlegm stagnation. Correlated with western medicine, Liver fire corresponds to the continuous excitation caused by excessive thyroid hormone; Qi and yin deficiencies represent the weakness and fatigue of the body from prolonged over-stimulation; and phlegm stagnation is illustrated in the enlargement of the thyroid gland. The root of hyperthyroidism is deficiency; the symptoms are excess. Treatment, therefore, must address both the cause and the symptoms simultaneously.

Differential Diagnosis

It is important to differentiate excess or deficiency in hyperthyroid patients in order to give the most appropriate formula. The three organs involved include the Liver, Heart and Kidney. Besides clearing heat, it is also important to nourish the yin as most bitter herbs can injure the yin and when used for a prolonged period of time will improve the symptoms but not treat the root of the condition. Clinically, the symptoms of hyperthyroidism are very similar to that exhibited in *xiao ke* (wasting and thirsting) syndrome. It is important to diagnose correctly so the accurate formula can be prescribed.

1. Liver Fire
2. Qi and Yin Deficiencies
3. Qi and Phlegm Stagnation
4. Liver, Kidney and Heart Yin Deficiencies
5. Liver Fire with Phlegm and Underlying Qi and Yin Deficiencies

Herbal Treatment**I. Liver Fire**Clinical Manifestation

Fidgeting, irritability, increased appetite, palpitation, red tongue, yellow thin coat, and wiry rapid pulse.

Herbal Formula

Zhi Zi Qing Gan Tang (Gardenia Decoction to Clear Liver) – Clears the Liver and purges fire.

Zhi Zi (Fructus Gardeniae)

Mu Dan Pi (Cortex Moutan)

Chai Hu (Radix Bupleuri)

Dang Gui (Radix Angelicae Sinensis)

Bai Shao (Radix Paeoniae Alba)

Fu Ling (Poria)

Chuan Xiong (Rhizoma Ligustici Chuanxiong)

Niu Bang Zi (Fructus Arctii)

Gan Cao (Radix Glycyrrhizae)

II. Qi and Yin DeficienciesClinical Manifestation

Fatigue, shortness of breath, dry eyes, palpitation, profuse perspiration, disturbed sleep, dry mouth, decreased fluid intake, hand tremor, red tongue, thin coat, deep thready rapid pulse.

Herbal Formula

Yi Guan Jian (Linking Decoction) – Tonifies qi and yin, softens the Liver, and calms the Heart.

Sheng Di Huang (Radix Rehmanniae), 30g

Sha Shen (Radix Glehniae seu Adenophorae), 15g

Mai Men Dong (Radix Ophiopogonis), 15g

Dang Gui Shen (Corpus Radicis Angelicae Sinensis), 15g

Gou Qi Zi (Fructus Lycii), 15g

Chuan Lian Zi (Fructus Toosendan), 8g

III. Qi and Phlegm StagnationClinical Manifestation

Irritability, feeling of oppression in the chest, plum-seed syndrome, enlargement of the thyroid gland, red tongue, thin greasy tongue coat, wiry or slippery-wiry pulse.

Herbal Formula

Chai Hu Shu Gan Tang (Bupleurum Powder to Spread the Liver) and **Ban Xia Hou Po Tang (Pinellia and Magnolia Bark Decoction)** – Resolve phlegm, regulate qi circulation, and soothe the Liver.

Chai Hu Shu Gan Tang (Bupleurum Powder to Spread the Liver)

Chai Hu (Radix Bupleuri), 19g

Chen Pi (Pericarpium Citri Reticulatae), 19g

Chuan Xiong (Rhizoma Ligusticum Chuanxiong), 14g

Xiang Fu (Rhizoma Cyperi), 14g

Zhi Qiao (Fructus Citri Aurantii), 14g

Bai Shao (Radix Paeoniae Alba), 14g

Zhi Gan Cao (Radix Glycyrrhizae Preparata), 5g

Ban Xia Hou Po Tang (Pinellia and Magnolia Bark Decoction)

Ban Xia (Rhizoma Pinelliae), 28g
Sheng Jiang (Rhizoma Zingiberis Recens), 26g
Fu Ling (Poria), 21g
Hou Po (Cortex Magnoliae Officinalis), 16g
Zi Su Ye (Folium Perillae), 10g

IV. Liver, Kidney and Heart Yin DeficienciesClinical Manifestation

Irritability, insomnia or light sleep, tremors, emaciation, dry mouth and throat, red tongue, scanty or no coating, thready and rapid pulse.

Herbal Formula

***Tian Wang Bu Xin Dan* (Emperor of Heaven's Special Pill to Tonify the Heart) and *Zhi Bai Di Huang Wan* (Anemarrhena, Phellodendron, and Rehmannia Pills)**

***Tian Wang Bu Xin Dan* (Emperor of Heaven's Special Pill to Tonify the Heart)**

Sheng Di Huang (Radix Rehmanniae), 31g
Ren Shen (Radix Ginseng), 4g
Fu Ling (Poria), 4g
Yuan Zhi (Radix Polygalae), 4g
Wu Wei Zi (Fructus Schisandrae Chinensis), 8g
Xuan Shen (Radix Scrophulariae), 4g
Bai Zi Ren (Semen Platycladi), 8g
Jie Geng (Radix Platycodonis), 4g
Tian Men Dong (Radix Asparagi), 8g
Dan Shen (Radix Salviae Miltiorrhizae), 4g
Suan Zao Ren (Semen Zizyphi Spinosa), 8g
Dang Gui (Radix Angelicae Sinensis), 8g
Mai Men Dong (Radix Ophiopogonis), 8g

***Zhi Bai Di Huang Wan* (Anemarrhena, Phellodendron, and Rehmannia Pills)**

Shu Di Huang (Radix Rehmanniae Preparata), 28g
Shan Zhu Yu (Fructus Corni), 14g
Shan Yao (Rhizoma Dioscoreae), 14g
Mu Dan Pi (Cortex Moutan), 10g
Ze Xie (Rhizoma Alismatis), 10g
Fu Ling (Poria), 10g
Zhi Mu (Radix Anemarrhenae), 7g
Huang Bai (Cortex Phellodendri), 7g

V. Liver Fire with Phlegm and Underlying Qi and Yin DeficienciesClinical Manifestation

Low-grade fever, tachycardia (90–120 heartbeats per minute), tremors of the tongue and fingers, enlarged thyroid glands, unilateral or bilateral swollen and bulging eyes, palpitations or tachycardia, fatigue, weight loss, fidgeting, irritability, bad temper, aversion to heat, perspiration, hunger and increased appetite, increased blood pressure, etc.

Herbal Formula

Imperial Formula for Hyperthyroidism

Xuan Shen (Radix Scrophulariae)

Zhi Mu (Radix Anemarrhenae)

Zhi Zi (Fructus Gardeniae)

Xia Ku Cao (Spica Prunellae)

Bie Jia (Carapax Trionycis)

Chuan Niu Xi (Radix Cyathulae)

Mu Li (Concha Ostreae)

Zhe Bei Mu (Bulbus Fritillariae Thunbergii)

Yuan Zhi (Radix Polygalae)

Huang Qi (Radix Astragali)

Fang Feng (Radix Saposhnikoviae)

Gan Cao (Radix Glycyrrhizae)

Patients with hyperthyroidism (other than thyrotoxicosis) should notice dramatic improvement within 1 to 1-½ month of herbal treatment. Most symptoms should completely subside within 3 to 6 month of treatment. Ocular protrusion may persist despite herbal treatment. When necessary, traditional formulas with modification may be prescribed depending on the condition of each individual patient.

Conclusion

Thyroid disorders, such as hyperthyroidism is a common illness affecting a great number of people. Though both conditions may be addressed with western or herbal therapies, each has its advantages and disadvantages. In Western medicine, differential diagnosis between hyperthyroidism, diabetes mellitus, tuberculosis and psychiatric disorder is essential for optimal treatment. In western medicine, drugs are often not prescribed for hyperthyroidism because of alarming side effects and poor therapeutic effects. Though surgery and radioactive iodine offer reliable treatment effects, they are far from ideal as many of the treated patients consequently develop hypothyroidism. With hypothyroidism, thyroid supplements are often prescribed to compensate for the lack of production of thyroid hormone. In addition to challenges in adjusting dosage, one of the biggest disadvantages of the use of thyroid hormone is the loss of bone density in pre- and post-menopausal women. Therefore, prior to using thyroid supplements, one must decide whether the short-term benefit of the drugs will outweigh the long-term risk of the side effects. In Traditional Chinese Medicine, herbal formulas offer consistent and reliable benefits in the treatment of hyper- and hypothyroidism. Though the onset of action for herbal therapies may be slower than more immediate conventional therapies, the effects of herbal medicine are consistent and reliable once the patients are stabilized. For hyperthyroidism, the imperial formula may be prescribed to decrease the size of the thyroid enlargement and reduce the symptoms of sympathetic excess. In short, herbal therapies are excellent alternatives for patients who cannot tolerate or do not wish to be treated with western medicine.

ABOUT THE AUTHOR:

Dr. John Chen is a recognized authority in both western pharmacology and Chinese Herbal Medicine. He teaches at the USC School of Pharmacy, Emperor's College, Yo San University of TCM, OCOM, Five Branches, AOMA and ACTCM. Dr. Chen's most recent published work is *Chinese Medical Herbology and Pharmacology* (2003, AOM Press) and *Chinese Herbal Formulas and Applications* (2008, AOM Press) for which he was the lead author.

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References:

- Kalant, H. et al. Principles of Medical Pharmacology 6th Edition. Oxford University Press. 1998
- Chen, J. Herbal Alternatives to Drugs: Thyroid Disorders. Lotus Herbs. 2000

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