

## Case Report

# Thyroid disorder: treatment with acupuncture

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### ABSTRACT

The thyroid gland is a butterfly-shaped gland located in the neck secreting thyroid hormones. When hormones are not secreted properly, the two conditions may occur - hypothyroidism and hyperthyroidism. Acupuncture as a treatment for thyroid disorders is used very common and it can improve the symptoms significantly. The patient is a 42 year old woman, who first came to the clinic on 14.02.2013 with very low level of TSH=0,2. Since then she has made 29 treatments in a period of three years, until 12.01.2016. Acupuncture treatments were made in a clinic for Traditional Chinese Medicine and acupuncture in Skopje, Macedonia. During the treatment her hormone levels normalized, although she faced and unplanned pregnancy and went from hyperthyroidism to hypothyroidism. The last results are from the analysis made on 12.01.2016 - FT4=9, 7 TSH=2,9 TPO<10 TG<20. Acupuncture has a positive effect as a treatment for thyroid disorders, regulating the flow of the energy and restoring the balance of the internal state of the body.

**Keywords:** Hypothyroidism, Hyperthyroidism, Treatment, Acupuncture, Traditional Chinese medicine

### INTRODUCTION

Thyroid gland is located in the neck and produces hormones that are released into the bloodstream to control the body's growth and metabolism. These hormones are called thyroxine and triiodothyronine. These hormones affect processes such as heart rate and body temperature thus help converting the food into energy to keep the body going. When the hormones are not secreted properly, the metabolism either revs up too high or slows way down. The two conditions that may occur are hyperthyroidism and hypothyroidism which can affect the thyroid in different ways and therefore have distinct symptoms.<sup>1,2</sup>

In hyperthyroidism, the thyroid gland produces too much thyroxine or triiodothyronine and speeds up the body's metabolism. It is also known as overactive thyroid gland.

Symptoms for hyperthyroid are: insomnia, fatigue, anxiety, weight loss, menstrual problems, sweating, poor memory and etc.<sup>1,2</sup>

Hypothyroidism or underactive thyroid occurs as a consequence of deficient secretion by the thyroid gland. Symptoms for hypothyroidism are: depression, goiter, dry hair, dry skin, weight gain, brittle nails, fatigue, constipation and etc. The major difference between hypothyroidism and hyperthyroidism is the thyroid's hormone output.<sup>1,3</sup>

Subacute thyroiditis is usually an impermanent condition which passes through 3 phases: hyperthyroidism, hypothyroidism and recurrence to the normal thyroid levels. Patients appear to have symptoms of both hypothyroidism and hyperthyroidism (rapid heartbeat, weight loss or nervousness), and they can feel highly ill.<sup>4</sup>

In cases of Hashimoto's thyroiditis - an autoimmune disease, it can go from hyperthyroidism to hypothyroidism. Sometimes, it is the temporary hyperthyroidism symptoms that first bring a patient with Hashimoto to doctor, TSH is low (sometimes dramatically low), FT4 and FT3 are high, characteristically for hyperthyroidism. However, the patient doesn't suffer from Graves' disease, his hyperthyroidism is just temporary condition and the patient is ultimately on his/her way to becoming hypothyroid.<sup>5</sup>

The Traditional Chinese Medicine (TCM) has a holistic perspective in the development of diagnostic impressions and treatment procedures for every patient. The purpose of TCM is to awaken the natural ability of the body to heal itself. TCM seeks the root cause within the patterns of imbalance, which determines to be a deficiency of both Kidney Yin and Kidney Yang. In acupuncture are used very fine sterile needles which are inserted into certain points into the body with purpose to clear the heat, strengthen the Liver and Kidney Yin and invigorate the Kidney Yang.<sup>6</sup>

The main cause of hypothyroidism is Yang Deficiency in which the function of the body to warm, motivate and transform is insufficient. The primary organ systems that are included are the Spleen and Kidney, and the Heart organ system becomes more involved in the advanced stage.<sup>7</sup>

According to TCM, hyperthyroidism is a combination of Qi and Yin inadequacy, Liver fire uprising and phlegm stagnation. Qi and Yin inadequacy is the fundamental cause, while the symptoms and signs show Liver fire and phlegm stagnation.<sup>8</sup>

**CASE PRESENTATION**

The patients is a 42 year old woman, who first came to the clinic on 14.02.2013 with very low level of TSH=0, 2. Firstly, the doctors diagnosed her with hyperthyroidism. Since then she has made 29 acupuncture treatments in a three year period, until 12.01.2016. The doctors advised her to take Thyrozol, but she decided to stick to acupuncture treatments. After 10 treatments, the patient became pregnant. During the pregnancy she hasn't done any treatments, except that the doctors advised her to take 25 mg Euthirox in order to give birth to a healthy child. According to the analysis and tests doctors made, they changed her diagnosis and diagnosed her with hypothyroid. She had symptoms like brittle nails, hair loss, weight gaining and etc., symptoms that usually occur in hypothyroidism, but her thyroid hormone levels were normal. She was taking the Euthirox only during the pregnancy until she came to the clinic on 21.03.2015. Since then 3 blood analysis for thyroid were made. Analysis show normal levels of TSH, FT4 and TPO hormones. Acupuncture treatments were made in a clinic for TCM and acupuncture in Skopje, Macedonia, by Dr

Spec. in acupuncture. Treatments were done indoor on a room temperature with duration of 35-40 minutes. Fine sterile needles were used made by Wuijuiang City Medical & Health Material Co., LTD, size 0.25x25 mm. Acupuncture points that were used in the treatment are: DU20 (BaiHui), GB20 (FengChi), DU14 (DaZhui), ST9 (RenYing), LI4 (HeGu), BL15 (XinShu), BL20 (PiShu), BL23 (ShenShu), DU4 (MingMen), RN6 (QiHai), RN4 (QuanYuan), SP9 (YinLingQuan), ST36 (ZuSanLi), SP6 (SanYinJiao), KI3 (TaiXi), LR2 (TaiChong).

**DISCUSSION**

After 29 therapies done in a period of 3 years her TSH level normalized, although she faced an unplanned pregnancy and went from hyperthyroidism to hypothyroidism. She has a whole family history with hypothyroidism - grandmother, mother, father and sister, thus the thyroid disorder occurred due to a genetic cause. The analysis didn't show elevated levels of TPO and coming from there the patient doesn't have a Hashimoto's thyroiditis.

She didn't have symptoms of subacute thyroiditis either, although the analysis at first show abnormal (low) level of TSH and normal levels of T4 and T3 hormones. The symptoms she had are symptoms typical for hypothyroidism. Subclinical thyroid dysfunction, defined as an abnormal TSH with normal levels of serum thyroid hormones (T3 and T4), affects 5 percent of women and 3 percent of men. Having a low or undetectable levels of TSH and normal levels of T3 and T4 is defined as subclinical hyperthyroidism.<sup>9</sup>

In Table 1 are shown the analysis made during the treatments and the hormone levels.

**Table 1: Thyroid analysis.**

Date	TSH (0,4-4,5)	T4 (9-21)	TPO<60
14.02.2013	0,2	normal	normal
21.04.2015	2,8	10,8	<20
07.07.2015	3,0	10,5	<10
12.01.2016	2,9	9,7	<10

In women, the risk of developing hypothyroidism increases with age and during pregnancy.<sup>10</sup> Our patient developed hypothyroidism during pregnancy i.e. her thyroid hormone levels changed. She also has a genetic history of hypothyroidism. A pregnant woman's body needs adequate thyroid hormone to support the development of the fetus and her own increased metabolic needs.<sup>11</sup> The gland increases 10% in size during pregnancy in iodine-replete countries and by 20% to 40% in areas of iodine deficiency.<sup>12</sup>

Two pregnancy related hormones - human chorionic gonadotropin (hCG) and estrogen, cause increased levels

of thyroid hormone in the blood. HCG (made by the placenta) is similar to TSH and can mildly stimulate production of the thyroid hormone. When the estrogen levels are increased, the production of thyroid-binding globulin level is higher, also known as thyroxine-binding globulin, a protein that transports thyroid hormone into the blood. These normal changes in the hormones are sometimes making the thyroid function tests which made during pregnancy to be very troublesome to interpret.<sup>13</sup>

Overtreatment of a hyperthyroid woman with anti-thyroid medications can cause hypothyroidism during pregnancy.<sup>14</sup>

According to traditional Chinese medicine, the treatment doesn't affect only the thyroid gland but the whole body is treated as well. So to rebalance the thyroid function, it is very important to find out which internal organs are disordered according to the symptoms. There are eight acupuncture channels that are directly or indirectly connected to the thyroid gland around the neck. These channels are the Bladder, Liver, Kidney, Gall Bladder, Stomach, Spleen, San Jiao and Small Intestine channels. Hypothyroidism symptoms that our patient had indicate there may be an underlying Liver Qi Stagnation with Spleen and Kidney Yang Deficiency syndrome. Acupuncture can correct the thyroid disorder and take away the symptoms associated with the underlying organ imbalances.<sup>15</sup>

## CONCLUSION

The goal of the traditional Chinese medicine is to erase all the symptoms of hyper and hypothyroidism and to achieve normal thyroid levels. This case has positive results and although sometimes it takes some time, a thyroid disorders can be successfully cured with acupuncture treatment.

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