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Case report

## Case report – Acupuncture treatment in subclinical hypothyroidism

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**Abstract:** Subclinical hypothyroidism is a term used to define a stage of hypothyroidism which appears most commonly in the early stages of the disease. When blood analysis are done, they show increased thyrotropin-stimulating hormone (TSH) levels and normal free thyroxine (T4) levels. The aim of the acupuncture treatment is to help the patient's own body ability to awaken to naturally heal and help reduce the body's stress response, so to improve the thyroid function. In the article is presented a case of 46 year old woman, diagnosed with subclinical hypothyroidism for one year. The patient has made 11 acupuncture treatments in a period of 3 months. Before the treatment the TSH level was 9.19 mIU/L (ref. 0.465-4.68), during the treatment it decreased to 3.70 mIU/L and after the treatment it normalized to 3.09 mIU/L. Acupuncture points used in the treatment are: DU4 (MingMen), RN4 (QuanYuan), RN6 (QiHai), GB20 (FengChi), DU20 (BaiHui), BL15 (XinShu), DU14 (DaZhui), LI4 (HeGu), ST9 (RenYing), LR2 (TaiChong), BL20 (PiShu), BL23 (ShenShu), SP6 (SanYinJiao), SP9 (YinLingQuan), ST36 (ZuSanLi), KI3 (TaiXi) and Ashi points located on the neck (front and back). Acupuncture treatment as part of the

TCM, gives fast and promising results in a short manner of time, improving the thyroid function and the overall body function and energy.

**Key words :** hypothyroidism, acupuncture, traditional Chinese medicine, thyroid

## INTRODUCTION

Subclinical hypothyroidism is a term used to define a stage of hypothyroidism which appears most commonly in the early stages of the disease. When blood analysis are done, they show increased thyrotropin-stimulating hormone (TSH) levels and normal free thyroxine (T4) levels. The condition may remain unchanged or it may progress with detectable anti-thyroid antibodies and greater TSH elevated levels. The condition appears in 3% to 8% of the population and most commonly in women than in men. Some studies have shown that 26.8% of the patients diagnosed with subclinical hypothyroidism have developed full-blown hypothyroidism within 6 years of the initial diagnosis <sup>[1-3]</sup>.

Risk factors for developing a thyroid disease are: family history of thyroid diseases, radiation treatments, auto-immune diseases, presence of anti-thyroid antibodies, medications, old age and other <sup>[1]</sup>.

The clinical signs and symptoms of hypothyroidism usually manifest when the disease is fully developed, but one or more symptoms may be also present in the earliest (subclinical) stage. Signs and symptoms of hypothyroidism are: fatigue, weakness, muscle cramps, weight gain, brittle nails, edema, cold intolerance, dry skin, hair loss, depression, constipation, bradycardia and other. In some patients with subclinical hypothyroidism are found elevated levels of total cholesterol, low-density lipoprotein (LDL) cholesterol and triglycerides, pointing that there is a possible connection between the subclinical hypothyroidism and cardiovascular diseases, causing high blood pressure and high cholesterol <sup>[1,3]</sup>.

The Western medicine as a treatment for clinical hypothyroidism recommends low daily dosages of levothyroxine - 25 to 50 mg for six to eight weeks. The goal of the treatment is to maintain the TSH level within normal range <sup>[1]</sup>.

The traditional Chinese medicine (TCM) as a treatment for clinical hypothyroidism recommends acupuncture, moxibustion and herbal treatment. Due to the nature of the condition, these treatments are usually long-term. The aim of these treatments is to help the patient's own body ability to awaken to naturally heal and help reduce the body's stress response, so to improve the thyroid function <sup>[4,5]</sup>.

## CASE REPORT

In the article is presented a case of 46 year old woman, diagnosed with subclinical hypothyroidism for one year. The patient's symptoms were fatigue, irregular menstrual cycle, elevated platelets, triglycerides, and cholesterol and decreased hemoglobin. The patient was prescribed to take Eutirox, 50 mg per day. The patient was taking the medications during the acupuncture treatments too.

The patient has made 11 acupuncture treatments in a period of 3 months. In that period were made 3 blood test analyses, before, during and after the treatments. Before the treatment the TSH level was 9.19 mIU/L

(ref. 0.465-4.68), during the treatment it decreased to 3.70 mIU/L and after the treatment it normalized to 3.09 mIU/L. The other parameters were normal. The same results are shown in **table 1**.

**Table 1:** Blood test analysis done before, during and after the treatment

	<b>TSH (0.465-4.68 mIU/L)</b>	<b>fT4 (9-20 pmol/L)</b>
<b>Before treatment</b>	9.19	11.51
<b>During treatment</b>	3.70	/
<b>After treatment</b>	3.09	14.41

The acupuncture treatments were made in a clinic for acupuncture and TCM in Skopje, North Macedonia by a doctor specialist in acupuncture. Treatments were done once a week, with duration of 30-45 minutes each side of the body. Treatments were done indoor, on a room temperature. In the treatment were used fine sterile disposable needles sized 0.25x25 mm produced by Wuijiang City Medical & Health Material Co., LTD.

Acupuncture points used in the treatment are: DU4 (MingMen), RN4 (QuanYuan), RN6 (QiHai), GB20 (FengChi), DU20 (BaiHui), BL15 (XinShu), DU14 (DaZhui), LI4 (HeGu), ST9 (RenYing), LR2 (TaiChong), BL20 (PiShu), BL23 (ShenShu), SP6 (SanYinJiao), SP9 (YinLingQuan), ST36 (ZuSanLi), KI3 (TaiXi) and Ashi points located on the neck (front and back).

Hypothyroidism, in terms of TCM, is mainly a deficiency disorder i.e. chronic deficiency of some of the vital substances of the body – blood, Qi, Yang, Yin or Essence. The condition may affect all the organs, but mainly affected are Kidney, Spleen and Heart, and indirectly Lungs and Liver. The beginning stage of the condition (the subclinical hypothyroidism) is mainly present with symptoms of Spleen Qi deficiency.

The acupuncture treatment is most effective at the onset of the disease and gives best results in early-stage conditions like subclinical hypothyroidism <sup>[6,7]</sup>.

## CONCLUSION

Acupuncture treatment as part of the Traditional Chinese Medicine, gives fast and promising results in a short manner of time, improving the thyroid function and the overall body function and energy.

## REFERENCES

1. V. Adlin, Subclinical Hypothyroidism: Deciding When to Treat; Am Fam Physician. 1998 Feb 15; 57(4):776-780.
2. V. Fatourechi; Subclinical Hypothyroidism: An Update for Primary Care Physicians; Mayo Clin Proc. 2009 Jan; 84(1): 65–71.

3. D. Christiano; What Is Subclinical Hypothyroidism?; 202 [www.healthline.com]
4. R. Tsuda, P03.01. Acupuncture's Effectiveness at Treating Subclinical Hypothyroid Disease via the HPA/HPT Axis: A Multiple Case Series; Glob Adv Health Med. 2013 Nov; 2(Suppl): S135.
5. B. Arsovska, J. Zhu, K. Kozovska, Case report - Acupuncture treatment in patient with high TSH (thyroid-stimulating hormone); International Journal of Contemporary Applied Researches Vol. 7, No. 4, 2020
6. B. Arsovska, J. Zhu, K. Kozovska, case report – acupuncture treatment in female patients with elevated anti-tpo levels; International Journal of Research – Granthaalayah; 2020, 8(12), 1–4.
7. D. Malikov, Traditional Chinese Medicine Approach to Hypothyroidism; Int J Complement Alt Med. 2017, 5(1): 00142. DOI: 10.15406/ijcam.2017.05.00142

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