

Acupuncture treatment in female patient diagnosed with hypothyroidism after COVID-19 infection

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Abstract

After the Covid19 pandemic subsided, the consequences of this virus began to come to light. Namely, there is an increase in thyroid diseases. A lot of studies published in the last three years announced abnormal thyroid function related to acute SARS infection and thyroid diseases have already been revealed as a consequence of the administration of vaccines against it. In this rep

ort is presented a case of 60 year old woman diagnosed with hypothyroidism after being infected with SARS-CoV-2 in 2021. The patient has done 38 acupuncture treatments from January 2021 till April 2022. The condition was slowly improving. The TSH levels decreased from 58.75 to 6.55 mIU/mL (0.45-5.33 mIU/mL), fT4 normalized from 0.46 to 10.9 pmol/L (7.88-19.40 pmol/L). Anti TPO levels decreased from 926 to 139 IU/mL (<8 IU/mL). Taking into account that this is an adult patient in

menopause and diagnosed with depression and anxiety, conditions that further complicate the possibility of faster treatment, the treatments are slow and longer lasting but with gradual excellent results. The results so far are satisfactory and the patient will continue with the treatments until the condition is completely normalized. Acupuncture has a huge effect and a positive influence on the function of the thyroid gland despite long-term treatments that require a lot of patience on the part of both the doctor and the patient. With regular treatments good results are guaranteed

Key words - hypothyroidism, acupuncture, traditional chinese medicine, endocrinology

Introduction

The thyroid gland is one of the most important endocrine glands in the human body, and its role is in regulating metabolism, but the symptoms that indicate problems with the thyroid gland are unclear, so doctors warn detailed analyzes to be done at least once a year. COVID-19 despite for being known as respiratory disease, other organs and systems are being affected too, including the thyroid gland. After the COVID-19 pandemic subsided, the consequences of this virus began to come to light. Namely, there is an increase in thyroid diseases that are difficult to self-diagnose, because they can be confused with other health problems. The latest research shows that it is assumed that every fifth woman will encounter a thyroid disorder during her life, and the number of affected men is also increasing, but the younger population is the most affected. The earliest symptoms that indicate a thyroid hormone disorder are fatigue, sudden weight loss or gain, slow or fast pulse, sensitivity to heat or cold, anxiety, depression, and hair loss. [1] [2]

The thyroid gland, pituitary and hypothalamus, which regulate the function of the endocrine glands, produce the main protein (angiotensin-converting enzyme 2 - ACE2),. which function is to be the receptor that SARS-CoV-2 attaches to enter host cells. In addition, every changes in the metabolism and the body homeostasis make the thyroid gland extremely sensitive. The highest level of ACE2 is expressed by the testicles, then the thyroid gland and the lowest level is expressed by the hypothalamus. Therefore the pituitary–thyroid axis should be considered as a target of SARS-CoV-2 attack. A lot of studies published in the last three years announced abnormal thyroid function related to

acute SARS infection and thyroid diseases have already been revealed as a consequence of the administration of vaccines against it. Abnormal function of the thyroid gland may appear during or in the convalescence post-COVID condition phase. [2] [3]

Some researchers explained that COVID-19 is able to modify the thyroid function on a variety of different levels. The thyroid gland can be affected directly via cytopathological effects of the corona virus or indirectly through coagulation mechanisms, cytokines or complement systems. [3] [4]

Acupuncture treatment as part of the Traditional Chinese Medicine (TCM) can help in regulating the Th1/Th2 cytokines imbalance and helps suppressing the autoimmune response. The treatment can reduce the symptoms of hypothyroidism, regulate the thyroid hormones, correct the immune dysfunction and improve the relevant biomarkers of the disease. [5]

Case report

In this report is presented a case of 60 year old woman diagnosed with hypothyroidism after being infected with SARS-CoV-2 in 2021. Since 2010 the patient was struggling with depression, increased appetite and low blood pressure. The patient is in menopause After the infection with corona virus the patient's condition with depression, anxiety and fear worsened. She was prescribes Asentra 50mg per day and Dimitrin 10mg per day.

The patient has done 38 acupuncture treatments from January 2021 till April 2022. The acupuncture treatments were made in acupuncture clinic for TCM and acupuncture in Skopje, North Macedonia by doctor specialist in acupuncture. The treatment duration is 30-45 minutes. Treatments were done indoor, on a room temperature, with normal acupuncture with fine sterile disposable needles sized 0.25x25mm. Acupuncture points used in the treatments are: GB20 (FengChi), DU20 (BaiHui), DU14 (DaZhui), ST9 (RenYing), BL20 (PiShu), BL15 (XinShu), BL23 (ShenShu), DU4 (MingMen), LI4 (HeGu), RN6 (QiHai), RN4 (QuanYuan), ST36 (ZuSanLi), SP9 (YinLingQuan), SP6 (SanYinJiao), LR2 (TaiChong) and KI3 (TaiXi).

The patient has done 5 blood test analysis during the treatments. The results are presented in table 1.

Table 1. Results from blood test analysis

Date	TSH (0.45-5.33 mIU/mL)	fT4 (7.88-19.40 pmol/L)	Anti TPO (<8 IU/mL)	Anti TG (<18 IU/mL)
19.02.21	58.75	0.46	926	12.1
12.04.21	32.72	/	/	/
30.11.21	14.53	9.46	179.6	152
03.03.22	11	10.9	139	100.5
01.04.22	6.55	/	/	/

The condition was slowly improving. The TSH levels decreased from 58.75 to 6.55 mIU/mL (0.45-5.33 mIU/mL), fT4 normalized from 0.46 to 10.9 pmol/L (7.88-19.40 pmol/L). Anti TPO levels decreased from 926 to 139 IU/mL (<8 IU/mL). Anti TG levels are still in the process of normalization.

Taking into account that this is an adult patient in menopause and diagnosed with depression and anxiety, conditions that further complicate the possibility of faster treatment, the treatments are slow and longer lasting but with gradual excellent results. The results so far are satisfactory and the patient will continue with the treatments until the condition is completely normalized and the TSH level is within normal limits. The condition will be monitored and further there will be a follow up of the work with new additional results.

According to TCM, in hypothyroidism the main affected systems are Spleen, Kidney and Heart and the main cause is Yang deficiency which fails to run the function of the body to warm, transform and motivate. The treatment doesn't affect and is not only focused on rebalancing the thyroid gland and thyroid function but the whole body is affected and treated as well. [1]

The acupoints chosen in the treatment help in endocrine disorders by regulating the hormones, regulating the neuro-immune-endocrine system, reducing the titer of anti-thyroid antibodies, regulating the hormones of pituitary-target gland axis, regulating the Qi in the meridians and other. [5]

Conclusion

Acupuncture has a huge effect and a positive influence on the function of the thyroid gland despite long-term treatments that require a lot of patience on the part of both the doctor and the patient. With regular treatments good results are guaranteed

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Conflict of interest

The author have declared that no competing interests exist.

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Statement of Informed Consent

Written informed consent was obtained from the patient for their anonymized information to be published in this article.

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