

Remember/Regeneration Treatment Method as a New Holistic Approach in Patients with Hashimoto's Thyroiditis: A Case Report

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ABSTRACT Background: Hashimoto's thyroiditis (HT), which causes hypothyroidism, is the most common pathology among autoimmune thyroid disorders (AITD's). In about 20% of patients, AITDs are associated with another organ specific/systemic autoimmune disorders. Currently, the treatment of hypothyroidism is the daily intake of synthetic levothyroxine as replacement therapy. The Remember/Regeneration Therapy Method (RTM) is a novel holistic medicine approach that targets physiopathological changes in quadruplet body structures and includes various complementary methods such as acupuncture, ozone therapy and phytotherapy, etc. in different combinations which are determined depending on affected diseases. **Case Report:** We present a Hashimoto's disease case which was serologically diagnosed and successfully healed with the RTM therapy without a significant side effects. **Conclusion:** RTM may provide consistent results for HT and many similar diseases by using combinations of various holistic medicine methods in different doses, durations and sessions. The identification of epigenetically regulated genes related to HT may be promising in order to develop epigenetic drugs for disease management. For that purpose, further scientific studies are needed.

KEYWORDS Hashimoto's Thyroiditis, RTM, Holistic Medicine, Epigenetic

Introduction

Hashimoto's thyroiditis (HT), which causes hypothyroidism, is the most common pathology among autoimmune thyroid disorders (AITD's). At the cellular level, the disease is characterized by lymphocyte infiltration, especially T cells, and follicular destruction, resulting in atrophy and fibrosis. At the molecular level, cytokines and chemokines play a role in autoimmune pathology of the disease. In about 20% of patients, AITDs are associated with another organ specific/systemic autoimmune disorders [1]. Novel scientific data show that epigenetics has been considered to exert essential roles in integrating of genetic

and environmental factors, and altered epigenetic status caused by environmental factors may drive susceptibility individuals genetically to develop AITD's [2,3].

Currently, the standard treatment of hypothyroidism is the daily intake of synthetic levothyroxine as replacement therapy. However, hormone replacement therapy provides relief of symptoms and complaints in the majority of patients while optimal recovery cannot be achieved in a small number of patients [4]. Although there have been many scientific studies on HT so far, no treatment has been found to cure patients completely. Vitamin D and selenium supplementations as well as the current hormone supplementation therapy have also been shown to have a useful effect on HT cases as promising developments [5,6] At the same time, some scientific studies showing the effects of complementary and traditional medical methods on the disease have also started to be included in the scientific literature [7,8].

The Remember/Regeneration Therapy Method (RTM) is a holistic approach which consists of diagnostic and treatment systems that include mainly phytotherapy and different combinations of various complementary and traditional medical meth-

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ods such as acupuncture, cupping therapy, hirudotherapy, ozone therapy, etc. Phytotherapy is the main and pivot part of the RTM while the other treatment modalities are used in order to support the effect of the phytotherapy. Moreover, in phytotherapeutic applications of RTM, two main groups of phytotherapeutics called "Remember Herbs" and "Regeneration Herbs" which consist of different amounts of various medical herbs are used. On the other hand, according to the RTM model, diseases are seen as the reflection of epigenetic changes in the phenotype resulting from the gene-environment mismatch. The treatment strategy is based on the recovery of health by substantially improving the deteriorating structures. It has been considered that the pathological process of a disease can potentially be reversed by the RTM, considering the epigenetic changes. It has been clinically observed that epigenetic changes and irregularities improved when appropriate treatment protocols were applied, as in the RTM model [9].

In this case report, we present a case with HT who is ameliorated clinically and serologically due to the RTM phytotherapeutics. The case was followed up periodically for one year in order to show that the RTM provided a cure. Possible mechanisms of the effect of the RTM and the recovery process of a patient with HT after the beginning of the RTM will be discussed.

Case report

The case was a 21-year-old female with HT and was suffering from the disease for about one year. There was no family story and any stress factor which trigger the disease. The case was cured with RTM phytotherapeutics consists of different herbal extracts. The following RTM phytotherapeutics was used for the case for 12 months approximately.

- DVD.KBRT, 3*4 (A mixture with thistle)
- ISY.CP, 3*4 (A mixture with nettle leaf)
- IST.ARD, 3*1 (A mixture with thistle seed and Juniper fruit)
- DTX19, 3*1

Follow up period and the diagnostic results

The patient was called for follow up periodically, and physical examination and other practices were performed. Clinical findings or complaints were not observed during the follow-up period of 1 year. Briefly, the case was completely healed and all complaints are disappeared almost with RTM within 11 months (Table1). Also, the all-healing process was supported by the improvement in antibodies (Table2). Any adverse effect due to RTM was not detected. The therapy exhibited a desirable safety outline and was associated with a good response.

Limitations

In this study, we could not use molecular methods to explain the mechanism of action of RTM in terms of epigenetic regulation. Since the case was out of control of our clinic before RTM treatment, she applied to us without epigenetic analysis. Therefore, we could not show the possible mechanism about the epigenetic process. The fact that the study was a retrospective study also contributed to this deficiency.

Discussion

Novel scientific discoveries in the sciences of biology and genetics have demonstrated that inheritance has a whole new dimension beyond the genes, not in the structure of the DNA.

In this new dimension of inheritance called epigenetics, it has been shown that changes can be transferred to new generations [10,11]. The importance of epigenetic modifications in long-term memory performance has been demonstrated in the most extensive and comprehensive study on DNA methylation. The processes such as chromatin remodelling, histone modifications, and non-coding RNA are also other significant changes that belong to epigenetic mechanisms [12].

The development of AITD is related to many factors, including genetic and environmental.[13,14]. It has been found that some thyroid-specific genetic factors are associated with AITD, such as TSHR gene and thyroglobulin (TG) gene polymorphisms [15-17].

DNA hypomethylation, one of the most common epigenetic mechanisms, has been shown to exist in AITD patients. DNA hypomethylation may cause the overexpression of some genes involved in immune function or the activation of immune cells and eventually autoimmune attack toward thyroid tissues [18,19]. Besides DNA methylation, histone modifications and other epigenetic mechanisms are highly dynamic, and are regulated by "writer" and "eraser" enzymes [20]. Histone modifications have been shown to play a role in autoimmune diseases by modulating immune tolerance. [21,22]. As promising treatment strategies, some small-molecule inhibitors targeting histone-modifying enzymes also provide new treatment options for diseases such as cancers and autoimmune diseases [23]. In addition to these drugs that work at molecular levels, many phytochemicals have been shown to be effective on certain conditions such as cancer chemoprevention and metabolic syndrome through epigenetic regulation [24,25].

The RTM is a holistic medicine that describes the anatomical and physiological aspects of physiopathological changes in quadruplet body structures (QBSs). The RTM phytotherapeutics which consists of a unique mixture of different herbal ingredients in different proportions, and they placed the centre of the RTM. Also, when it is needed, many complementary medical methods such as acupuncture, ozone therapy, cupping therapy, hirudotherapy, etc. may add to the RTM phytotherapeutics that is the significant axis of the model. In the RTM, diseases are seen as the reflection of epigenetic changes in the phenotype resulting from the gene-environment mismatch. The treatment strategy is based on the recovery of health by substantially improving the deteriorating structures. Considering that many of the epigenetic changes which lead to disease can potentially be reversed, it has been clinically observed that epigenetic changes and irregularities improved with appropriate treatment protocols were applied, as in the RTM. Thus, firstly, these extraordinary and abnormal conditions that lead to the gene-environment mismatch should be eliminated, and secondly, previous normal physiological processes should be reminded to the body. Already, the name of RTM comes from the special treatment strategy that composes of proper combinations of regenerative and reminder phytotherapeutic agents and holistic medicine methods [9].

There are some laboratory tests to diagnose thyroid diseases. TSH and free thyroid hormone tests are frequently used to detect the disorders in thyroid functions while thyroid peroxidase antibodies (TPO-Ab) test is used to diagnose HT [26]. Serum thyroglobulin antibody (Tg-Ab) is a marker of autoimmune diseases of the thyroid gland. Since serum Tg-Ab is found to be elevated in 10% of the general population (especially in women), it is not as sensitive or specific as the thyroid biomarker compared to TPO-Ab or TSH receptor antibodies (TRAb). In cases

Table 1 The changes of clinical symptoms in the case before and after the treatments.

Hashimoto's Thyroiditis Case, Female, 21 Years Old	
Therapeutics, Doses and Duration of RTM	DVD-KBRT 3*4 ISY-CP 3*4 IST-ARD 3*1 DTX 19.3*1 12 Months
Symptoms Before RTM	Intense hair loss; Intense brittle nails; Intense acne
Symptoms After RTM	Significant reduction in all symptoms
Follow Up Period without Disease and Synthetic Levothyroxine	1 Year

Table 2 The variation in values of hormones and antibodies of the case before and after the RTM.

Hashimoto's Thyroiditis Case, Female, 21 Years Old					
Analyze Date	T3* 2.3-4.2 pg/mL	T4* 0.8-1.8 ng/dL	TSH* 0.4-4.5 mIU/L	Anti TPO* <35 IU/mL	Anti TG* <20 IU/mL
03.17.2015	3.76	0.94	10.78	107	328
05.08.2015	The Beginning of the RTM				
09.14.2015	3.72	0.99	10.51	103	323
04.15.2016	The cessation of the RTM				
04.15.2016	3.70	1.06	3.32	47.9	49.3
05.18.2017	3.22	1.3	2.47	<28	31

*Normal Ranges in Conventional Medicine

where TPO-Ab is not increased, TgAb is not significantly associated with thyroid disease. TPO-Ab is found in 5–20% of the general population while it is always elevated in patients with HT almost [27].

In the current case, the hormones and antibodies were significantly decreased by our treatment model. Moreover, all complaints disappeared almost when compared to before treatment. It is more likely that the efficacy on all parameters is related to possible smart molecules which regulate epigenetic modification found in RTM phytotherapeutics.

Conclusion

As a conclusion, The RTM treatment was well tolerated by the patient with HT, and no side effects were observed. The identification of epigenetically regulated genes related to HT may be promising in order to develop epigenetic drugs for disease management. However, further functional studies might be required to determine epigenetically regulated genes in HT.

Disclosure Statement

There were no financial support or relationships between the authors and any organization or professional bodies that could pose conflict of interests.

Competing Interests

Written informed consent has been obtained from the patient for publication of this case report and any accompanying images.

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