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Yagya Therapy for Sub-Clinical Hypothyroidism: A Case Study

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Abstract. Sub-clinical hypothyroidism (SCH) is a condition in which Thyroid Stimulating Hormone (TSH) levels are increased, Thyroxine (T4) level is normal to low, and Triiodothyronine (T3) level is normal. Daily use of the synthetic thyroid hormone such as levothyroxine has been a standard approach to SCH. However, most modern approaches are unable to revert the condition to its normal level. Traditional approaches such as Yagya-Therapy can be an effective option in this regard. Yagya-Therapy provides pulmonary inhalation of medicinal-smoke of multiple herbs (generated through oblation in fire along with chanting of Vedic hymns), which have the potential for hormonal balance A case study is being reported wherein a patient (Male/60 years), who had been suffering from SCH since past 2 years and 4 months (pre-data), had been continuously taking allopathic medication for SCH, B12 complex and high blood pressure, and all this time TSH never became normal. The patient continued with the aforesaid medication, and took Yagya-Therapy for 3 months as an add-on therapy. Subsequently, after 4 months of completing Yagya-Therapy, post-data was recorded. Before Yagya-Therapy, TSH levels were very high, i.e. 4.79-11.82 µ/ml, which became normal (3.0 µ/ml) after the Yagya-Therapy. The earlier low levels of B12 (238-326 pg/ml) also increased to the upper side of the normal range (1034 pg/ml). Patient's other complaints such as tiredness, weakness, sleep issues were also resolved completely. Thus, the present study indicates the effectiveness of Yagya-Therapy in the treatment of SCH.

Keywords. Yagya-Therapy, Sub-clinical hypothyroidism (SCH), medicinal-smoke, multiple-herbs

Introduction

Sub-clinical hypothyroidism (SCH) is a condition in which Thyroid Stimulating Hormone (TSH) levels are increased, Thyroxine (T4) level is normal to low, and Triiodothyronine (T3) level is normal. It is also called mild thyroid failure (1,2). This condition occurs in 3% to 8% of the general population. It is more common in women than men, and its prevalence increases with age (3-5).

Daily use of the synthetic thyroid hormone such as levothyroxine has been a standard approach for the management of SCH (6). However, most modern approaches are unable to revert the condition to its normal level. Thus, there is a definite need to look for other therapeutic approaches, which can effectively manage SCH.

Yagya Therapy or Yagyopathy is an ancient Indian method of herbal inhalation therapy that allows for the pulmonary administration of herbs. In this process, coarse powder of multiple herbs is converted in medicinal smoke by offering these in the fire during the traditional Vedic ritual called Yagya (7,8). Patient is asked to inhale medicinal smoke, which contains phyto-constituents that provide therapeutic advantage (9-10). The method of medicinal smoke inhalation is not a new concept, rather, it prevailed in many traditional and cultural practices for pulmonary and neuronal diseases (11).

Yagya Therapy, as a tool for medicinal smoke inhalation, has shown therapeutic advantage in tuberculosis (12-13), mental health (14), HIV infection (15), and cancer (16) patients. Furthermore, several medicinal plants like Kachnar (bauhiniavariegata) (17), Aswagandha (Withania somnifera) (18), etc. have shown therapeutic advantage in SCH. Thus, administration of Yagya Therapy, using the appropriate medicinal herbs, can be an effective therapeutic approach for the management of SCH. The present paper describes a case study wherein the effect of Yagya Therapy, using an appropriate herbal formulation, on a patient, who had been suffering from SCH since past ~2 years, has been explored.

Methods

Patient history and course of treatment

A case study is being reported wherein a patient (Male/60 years), who had been suffering from SCH since past 2 years and 4 months (pre-data), had been continuously taking allopathic medication for SCH, B12 complex and high blood pressure. However, his TSH never came within the normal range, and he continued to suffer from other complaints like low level of B12 (for which he had to take B12 injections in every summer), disturbed sleep, fatigue, and reduced work capacity.

Looking at the beneficial effect of various medicinal herbs in the management of SCH, and the effectiveness of Yagya Therapy in administering herbal formulations through the nasal route in the form of medicinal smoke, the patient was advised to take Yagya Therapy as an add-on therapy. Therefore, the patient continued with the aforesaid allopathic medication, and took Yagya Therapy for 3 months as an add-on therapy. Subsequently, after 4 months of completing Yagya-Therapy, post-data was recorded.

Procedure of Yagya and herbal preparation intake

Patient was advised by the Department of Ayurveda and Holistic Health (DAHH), Dev Sanskriti Vishwavidyalaya, Haridwar to follow the standard protocol of Yagya, at home. Briefly, the procedure included doing Shatkarma (Pavitrikaran, Achaman, Shikhavandan, Nasya, Prithvi Pujan) (i.e. spiritual practices for purification), Chandan-dharan, Guru-avahan, 24 oblations of the herbal mixture (hawan samagri) in the fire along with the chanting of Gayatri Mantra, followed by Pranayama for 10 minutes (19,20). Patient was advised to use copper pot (in which the fire is generated), mango sticks (for generating the fire), ghee (clarified butter made from indigenous cow's milk), and herbal preparation (hawan samagri) prescribed by Department of Ayurveda and Holistic Health. The patient informed that he mostly used mango sticks and commercially available ghee.

As per dietary modifications suggested at DAHH for his associated complains, patient started taking Calabash juice and trifla churna from August 2017.

Patient performed Yagya daily in the morning in a small worship-room in his house. Subsequently, he continued to sit in the same room for another 30 minutes, in which he performed his routine worship (that he had been doing since past several years) of chanting mantras including Gayatri Mantra.

Herbal mixture (hawan samagri) preparation

Since past several years, the Department of Ayurveda and Holistic Health (DAHH) (earlier Center for Ayurveda Studies, and before that Center of Holistic Health Management), Dev Sanskriti Vishwavidyalaya, Haridwar, Uttarakhnad has been prescribing Yagya Therapy (Yagyopathy), wherein different herbal preparations of Ayurvedic plant medicines (hawan samagri) have been made in-house for various diseases.

With regards to the present study, DAHH prescribed a hawan samagri for SCH treatment, which consists of more than 12 herbs (16). No metal was used in the herbal preparation. All ingredients were well identified by taxonomist (21), were non-toxic, and could be useful in the management of SCH, and the associated disorders (17-19, 22). Some of the herbs whose effectiveness in the management of hypothyroidism, and associated disorders, has been demonstrated in the open literature include: Kachnar (bauhiniavariegata) (17), Ashwagandha (Withania somnifera) (18), Giloy (tinsopora), Shatavar (asporagus), Kayphal (myrica esculenta), Punarnava (Boerhavia diffusa) (19, 22).

Along with the hawan samagri for SCH, patient was also prescribed a common purpose immunity-boosting hawan samagri; SCH and common purpose havan samagri had to be mixed in 3:1 ratio, and then the oblations had to be made in the fire with this mixture.

Patient Evaluation

Before the start of the therapy, informed consent was taken from the patient. Patient's prior consent was taken to use his medical records data for research publication, without revealing his identity.

His pre and post blood reports of B12, TSH, T3, and T4 were collected, and used for evaluation. Patient's past medical diagnostic reports showed that there was abnormal increase in the level of TSH, and he was diagnosed as suffering from SCH.

Results

Patient was diagnosed for SCH in July 2015, when his TSH level was 4.5 µU/ml (Figure 1A), which is in the upper side of normal range, i.e. 0.34-5.6 µU/ml. Subsequently, the patient started taking allopathic treatment for SCH. However, further reports show that the TSH level never became normal, and instead went above the normal range (Figure 1A); in May 2017, TSH level became as high as 11.82 µU/ml, while T4 and T3 levels were in normal range (Figure 1B,1C) (normal range for T3 (0.7-2.0 ng/ml), T4 (5.5-12.5 mcg/dl). In addition, his B12 level was on the lower side (238-326 pg/ml) of the normal range (180-914 pg/ml) since past 2 years (Figure 1D) before taking Yagya Therapy.

In November 2017, patient took Yagya Therapy as an add-on therapy for 3 months, while continuing allopathic medication for TSH, B12 and High Blood Pressure.

The post report was taken 4 months after completing Yagya Therapy. In this report, TSH level became normal (3.0 µU/ml) (Figure 1A). In addition, B12 level significantly increased (1034 pg/ml) to the upper side of the normal range (Figure 1D).

As per patient's feedback, his other complaints such as tiredness, weakness, and lack of sleep were also resolved after taking Yagya Therapy.

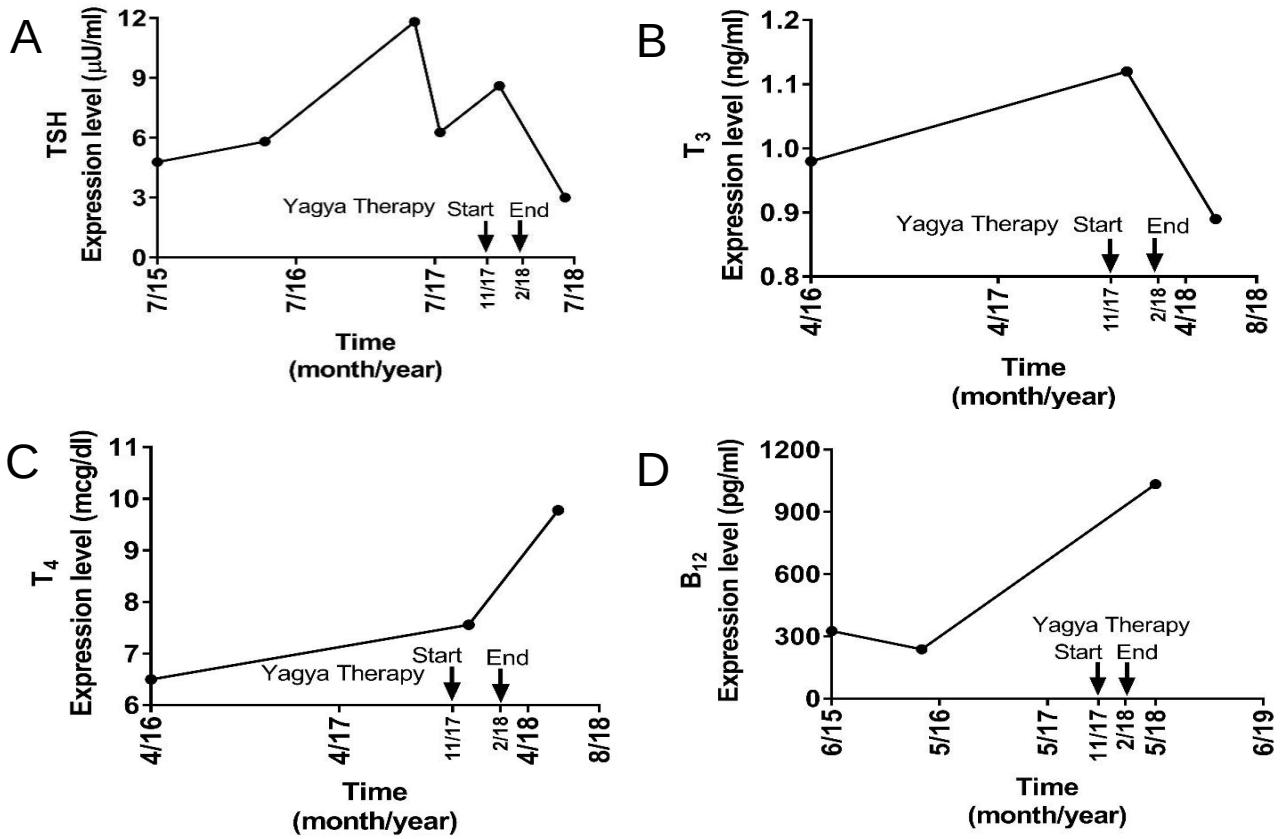

Figure 1. Expression level of different parameters before and Yagya therapy in patient with sub-clinical hypothyroidism. A) Expression level of the A) TSH, B) T3, C) T4, D) B12 before and after Yagya Therapy. Patient was on allopathy regime throughout the time.

Discussion

The present study indicates the potential of Yagya Therapy as a supportive or adjunct therapy for the treatment of SCH. In Yagya Therapy, the herbal preparation contained herbs, which were chosen based on careful review of Ayurvedic pharmacology, modern pharmacology, and scriptural indications (17-19, 22). Their aromatic volatile oil helps in the management of SCH. For example, Jagmeet and Milan (17) have described the usefulness of Kachnar (bauhiniavariegata) in the treatment of Hypothyroidism. They (17) have mentioned that although there is no direct reference of hypothyroidism in Ayurvedic scriptures, but Galgand or Gandmala is found more often, which has similar symptoms as compared with hypothyroidism. Galgand is a Vata Kaphaj disorder, hence the drug used must balance Vata and Kapha (17); Kanchnar is considered a potentially beneficial drug in this regard.

One of the important aspect of Yagya Therapy for getting improved pathological condition is the pulmonary inhalation of medicinal-smoke of the prescribed herbs (11-16). As previously mentioned (9), pulmonary inhalation is an effective route to administer herbs, for various diseases, through the nasal route. Volatile phytochemicals impart the therapeutic advantage, just like in the case of aroma therapy.

Ghee is essentially used in this treatment. According to ancient Indian scriptures, the utilization of ghee in

Yagya is meant to give strength to patient, who otherwise cannot digest fat in diseased condition (23). Furthermore, according to modern research findings, lipid nanoparticles are shown to enhance drug delivery (24) through the nasal route (9).

In the present study, the patient took Yagya Therapy from 3 months, along with modern allopathic medication, and reported notable benefits in his condition, indicating that Yagya Therapy is a safe and compatible therapy, as adjunct therapy, in the treatment of SCH. It is noteworthy that the present study was done in OPD (Out-Patient Department) setting, wherein the patient was prescribed the therapy, and was required to do Yagya at his home. Such a setting has obvious limitations with regards to following the prescribed procedure; however, the patient still reported notable benefit due to Yagya Therapy.

Thus, the present study shows encouraging result with regards to the effectiveness of Yagya Therapy in the treatment of SCH. Further studies are needed to establish the mechanism and role of Yagya Therapy in SCH treatment.

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