Effective Ayurveda therapy to treat thyroid disorders

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ABSTRACT

Introduction: Thyroid disorders are on the rise across the world. While there are therapies available to treat them, many unavoidable side effects occur as part of the therapy. Ayurveda is the ancient system of medicine in India which uses herbal based medicines to treat diseases. In clinical practice this system of medicine is seen to be well tolerated by patients. Therefore, it will be a benefit to the patients with thyroid disorders if treatment based on Ayurveda can be developed as an effective alternative to modern medicine. Materials and Methods: The patients were diagnosed based on symptoms as per ayurvedic guidelines, followed by modern laboratory tests. Therapy was determined according to the nature of the disease manifestation. Results: We observed that ksheerabala (a preparation of Sida cordifolia in milk) was effective in patients of both the genders and different conditions of thyroid disorders. Conclusion: The encouraging results observed in clinical setting after the application of ksheerabala need further laboratory research to identify its mechanism of action. We believe that mechanistic studies with ksheerabala will validate its role as an effective alternative medicine for thyroid disorders.

Keywords: AVUSH, ISM & H, Patient satisfaction, Service utilization.

INTRODUCTION

Ayurveda is an age-old traditional system of medicine originated from India. It is thought to have at least a history of 3000 years. In this system, the universe is believed to be consisting of five elements- Pritvhi (Earth), Jala (water), Agni (Fire), Vayu (Air) and Akasha (Space). They are known as Panchamahabhoothas (five major elements). These five elements also constitute the human body and the three humors (tridoshas). The tridoshas are Vata (related to air), Pitta (related to fire) and Kapha (related to water). According to Ayurveda, for a healthy human body, these tridoshas must be balanced. Any imbalance, leads to a state of disease. This system of medicine explains the various means to keep tridoshas balanced in various disease conditions, which constitute the treatment part [1].

Currently there is a lot of interest in getting an Ayurvedic massage -just a superficial part of Ayurvedic treatment- which has got wide popularity across the world. However, the question is, can Ayurveda be a treatment option against emerging health conditions in this century. Can we find solutions for the wide range of life style diseases that we see around us, in Ayurveda?

One major health disorder affecting globally is thyroid disorder. The American Thyroid Association (ATA) expects that more than 12 percent of the American population will develop some thyroid disorder in their life time. The ATA estimates about 20 million Americans already having thyroid disorder. Women are more prone to develop thyroid disorders with five to eight times higher probability than men [2]. A study in India published in 2011 reported that, there were 42 million people suffering from some form of thyroid disorder [3]. For hyperthyroidism anti-thyroid medication and surgery are the options [4], while for hypothyroidism, lifelong thyroid hormone replacement therapy is the option [5]. These medications can lead to side effects like change in appetite, hair loss, muscle weakness [6,7]. The ATA has listed Ayurveda as a choice of Complementary and Alternative Medicine (CAM) [8]. However, clinical evidence needs to be shown to establish that effectiveness of Ayurveda as a treatment option for thyroid disorders. In this context, we share how patients with thyroid disorders are classified in Ayurveda, how they were treated in our facility with Ayurvedic medicines and how they responded to the treatment.

Ayurveda describes thyroid disorders based on doshas. Hypothyroidism has been divided into five classifications based on, whether it is caused by - Vata, Pitta, Kapha or urinary tract infections (mostly in females) and finally the “goiter” type, where a pronounced swelling of the gland can be seen around the neck region. The “goiter” type is believed to be the advanced stage of Kapha induced hypothyroidism. Improper digestion of food is considered as an underlying cause for all the dosha induced hypothyroidism. In addition, the Vata induced disorder has a psychological component from mental agitation and mental...
stress, and a physical component from excessive physical activity. The hyperthyroidism is attributed to pita only. Treatment is prescribed after ascertaining the root cause of the disorder. For example, if the disorder is Kapha based, the medicines will be given to bring the kapha dosha in the body to normal level. Therefore, Ayurveda provides a patient centric approach for treatment [1].

MATERIALS AND METHODS

The study was conducted at Jubilee Ayurveda Mission Hospital & Research Institute between 2016 and 2018. The patients were diagnosed based on the symptoms as per ayurvedic guidelines and modern laboratory tests for TSH (thyroid stimulating hormone), T3 (total triiodothyronine) and T4 (total thyroxine). Therapy was determined according to the nature of the disease manifestation. The therapy was continued till the laboratory tests showed normal values for TSH, T3 and T4 in the respective cases.

RESULTS AND DISCUSSION

Here we provide a summary of diagnosis, treatment and outcome of five patients treated for different thyroid disorders at our medical center.

Table 1: Summary of diagnosis, treatment and outcome

<table>
<thead>
<tr>
<th>Patient No:</th>
<th>Gender</th>
<th>Diagnosis</th>
<th>Ayurvedic Dosha</th>
<th>Lab Diagnostics Results (TSH)</th>
<th>Ayurvedic Medicines Administered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Initial</td>
<td>Final</td>
</tr>
<tr>
<td>1</td>
<td>F</td>
<td>Hashimoto’s thyroiditis with hypothyroidism</td>
<td>Vata and Pitha based</td>
<td>135(µ IU/ml)</td>
<td>3.4 (µ IU/ml) [6-month treatment]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Drakshadi Kashayam (grape decoction)+ external application of Ksheerabala on thyroid</td>
</tr>
<tr>
<td>2</td>
<td>F</td>
<td>Hypothyroidism</td>
<td>Vata and Pitha based</td>
<td>150 (µ IU/ml)</td>
<td>17(µ IU/ml) [3-month treatment]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Black fennel extract + external application of Ksheerabala on thyroid</td>
</tr>
<tr>
<td>3*</td>
<td>M</td>
<td>Hypothyroidism</td>
<td>Kapha based</td>
<td>Normal (was on thyroxin medication - 150 mg daily)</td>
<td>Normal (no thyroxin administration as of now)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Panchakarma (predominantly enema therapy)</td>
</tr>
<tr>
<td>4</td>
<td>F</td>
<td>Hypothyroidism</td>
<td>Pitha based</td>
<td>Normal (was on thyroxin medication- 100 mg daily)</td>
<td>Normal (no thyroxin administration as of now)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ayurvedic treatment for urinary tract infection + Kokilaksham Kashayam (herbal decoction)</td>
</tr>
<tr>
<td>5</td>
<td>M</td>
<td>Hyperthyroidism</td>
<td>Pitha based</td>
<td>T3 - 3.1 ng/ml \ T4 - 19.3 µ gm/dl</td>
<td>T3 - 1.61 ng/ml \ T4 - 11.6 µ gm/dl</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mahatiktakam (ghee based preparation) + external application of Ksheerabala on thyroid</td>
</tr>
</tbody>
</table>

(* The patient was considered “obese” based on physique, normal values for TSH: 0.27-4.2 µ IU/ml, T3: 0.80-2.0 ng/ml, T4: 5.1-14.1 µ gm/dl)

We would like to direct the attention to the fact that, in patients from both the genders (patients 1, 2 and 5), external application of ksheerabala on thyroid was found to be effective clinically as an adjuvant therapy against hypothyroidism (patients 1 and 2) and hyperthyroidism (patient 5). Even though, we have only data from five patients, this observation is very encouraging and we are in a process to understand how ksheerabala can better the condition of patients.

Ksheerabala is an Ayurvedic preparation using the herb *Sida cordifolia*. A decoction of the herb is prepared first. Then adequate amount of sesame oil is added to the decoction, followed by boiling this mixture in milk. The boiling process concentrates the mixture. The next day this concentrated mixture is again boiled with a stipulated amount of fresh milk. The process is continued for 101 days and on the final day a very concentrated ksheerabala is ready for clinical use. This process also increases the potency of the drug to a greater extent, which determines its clinical efficiency [9].

The usual way of studying natural products or traditional medicines is to isolate active constituents from natural products or Ayurvedic drugs and test in cells or animals. However, many such studies were only found to be effective in animals and not in clinical studies. Drawback of research
on Ayurveda from the point of view of modern medicine could be attributed to focusing on one or two active ingredients, lack of mechanistic data on medicinal preparations, inadequate knowledge about the effect of these medicines in a biological system at a molecular level, not standardized as modern medicine and no proper clinical trials to establish efficacy.

CONCLUSION

Here we present a clinical observation where patients with thyroid disorders were treated with Ayurvedic medicines, based on the condition of each patient. We have observed consistent encouraging results for thyroid treatment and we need further studies to understand the interesting mechanism of ksheerabala in particular. In the near future, the researchers along with physicians would like to identify the mechanism of action of this medicinal preparation as a whole, using appropriate animal models. We will use the latest technology available in the research world to identify the mechanism of this whole medicinal preparation in animal models. We believe this bed-to-bench approach will be beneficial in understanding how Ayurvedic drugs work in a physiological condition, especially in thyroid disorders to begin with.

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Conflict of Interest: None

REFERENCES


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