Management of Hypothyroidism with Ayurveda - A Case Study

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INTRODUCTION

Thyroid problems are the most common endocrine disorders seen worldwide. Thyroid gland secretes two hormones, Thyroxine (T4) and Triiodothyronine (T3). TSH plays a major role in controlling the thyroid axis and serves as the most useful physiological marker of Thyroid gland function. Sedentary lifestyle and unhealthy food habits may be considered as a primary reason behind increasing Endocrinological disorders including that of Thyroid gland. Increasing levels of stress and anxiety is also contributing to thyroid disorders as the gland is highly sensitive to stimuli. Many of the Kaphaja Nanatmaja Vikaras are seen as the clinical features of Hypothyroidism viz. Gurugatrata (feeling of heaviness), Alashya (lethargy), Tandra (drowsiness), Atishthoulya (obesity/weight gain), Atinidra (excessive sleep) etc. Hypothyroidism is a clinico-pathological condition affecting multiple systems and require multimodal treatment. The treatment protocol was adopted to counteract the pathophysiology by Shodhana and Shamana Chikitsa. Patient was cured completely with no reoccurrence of symptoms even after 6 months. During subsequent treatments and routine follow-ups, laboratory investigations were done. A case of hypothyroidism was successfully treated with multimodal Ayurvedic medicine, resulting in a rapid and significant recovery.

Key words: Hypothyroidism, Ayurveda, Agnimandya, Medo-Dushti, Virechana, Case report.

ABSTRACT

Thyroid problems are the most common endocrine disorders seen worldwide. Thyroid gland secretes two hormones, Thyroxine (T4) and Triiodothyronine (T3). TSH plays a major role in controlling the thyroid axis and serves as the most useful physiological marker of Thyroid gland function. Sedentary lifestyle and unhealthy food habits may be considered as a primary reason behind increasing Endocrinological disorders including that of Thyroid gland. Increasing levels of stress and anxiety is also contributing to thyroid disorders as the gland is highly sensitive to stimuli. Many of the Kaphaja Nanatmaja Vikaras are seen as the clinical features of Hypothyroidism viz. Gurugatrata (feeling of heaviness), Alashya (lethargy), Tandra (drowsiness), Atishthoulya (obesity/weight gain), Atinidra (excessive sleep) etc. Hypothyroidism is a clinico-pathological condition affecting multiple systems and require multimodal treatment. The treatment protocol was adopted to counteract the pathophysiology by Shodhana and Shamana Chikitsa. Patient was cured completely with no reoccurrence of symptoms even after 6 months. During subsequent treatments and routine follow-ups, laboratory investigations were done. A case of hypothyroidism was successfully treated with multimodal Ayurvedic medicine, resulting in a rapid and significant recovery.
contribute to symptoms of Hypothyroidism. As Charaka Acharya has mentioned the Medavaha Srota Dushti Laksanas[1] which are also the Purvarupa of Prameha: Shayyasana Sapnasukhe Rati (fatigue), Sithilangata (lethargy), Ghanangata (weight gain) etc. These features also simulate the symptoms of Hypothyroidism. Hypothyroidism is a clinico-pathological condition affecting multiple systems. There are many hypotheses formulated regarding the understanding of Hypothyroidism in Ayurveda.

CASE PRESENTATION

A female patient aged 50 years came to Ayushakti Ayurveda Pvt Ltd, Navi Mumbai branch with the following complaints:
Increased tiredness, sudden weight gain, puffiness of face, constipation and lack of concentration.

Clinical findings
Local examination of the Thyroid gland
On inspection
No localised swelling
On palpation
a) Size - normal
b) Shape - normal
c) Tenderness - absent
d) Temperature - not raised

Astavidha Pariksha
a) Nadi - Vata-Kapha
b) Mutra - Pita
c) Mala - Malavastambha
d) Jiva - Saama
e) Shabda - Prakrit
f) Sparsha - Prakrit
g) Drik - Prakrit
h) Aakriti - Sthula

Laboratory evaluation
Thyroid profile
T3 - 154.1 ng/dL
T4 - 8.66 µ/dL
TSH - 10.60 µIU/ml

Treatment protocol
As per etiology and clinical presentation patient was diagnosed as Rasavaha Strotas Dushti and Agnimandya. On basis of this diagnosis, line of treatment was planned. At first patient was advised to take Shodhana Chikitsa considering the Bahudosha (patient having excessive accumulation of Dosha) condition.

Table 1: Shodhana Chikitsa in detail

<table>
<thead>
<tr>
<th>SN</th>
<th>Purva Karma</th>
<th>Pradhan Karma</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Snehana (therapeutic oleation) Panchatikta ghee - Internally Swedana (Sudation therapy) Sarvanga Bashpa Sweda with dashamool decoction</td>
<td>Virechana (Therapeutic purgation) with Virechana tablet</td>
<td>14 Vegas and 2 Upavegas</td>
</tr>
<tr>
<td>2.</td>
<td>Sarvanga Snehana (therapeutic oleation) Swedana (Sudation therapy) Sarvanga Bashpa Sweda with Dashamool decoction</td>
<td>Anuvasana Basti with Sahachar Taila 60 ml Niriha Basti with Dashamool decoction 120ml</td>
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</tbody>
</table>

Shodhana Chikitsa

Purva Karma (Preparatory procedures)
As a prerequisite of Virechana process, Snehana (internal oleation) therapy is essential. In this case Snehana was decided with Panchatikta Ghrita. It contains ingredients like Guduchi (Tinospora cordifolia), Nimba Mool Twak (Azadirachta indica root bark), Vasa (Adhatoda vasica), Patol (Trichosanthes dioica) and Kantakari (Solanum xanthocarpum). All ingredients being Tikta (bitter) in nature show better penetration of ghee in skin tissues. Test dose was performed with 30 ml Panchatikta ghee on day 1. On day 2, 3 and 4 it was increased by 50ml, 80ml, 100ml respectively. On day 5th patient developed Snehasiddhi Lakshana like Vata Anulomana (passage of flatus), Mala Snigdhata (unctuous stool), Sneha Dvesha (aversion for oleation), Snigdaangata (smoothness of
body), Glani (fatigue), etc. were observed. After signs of complete oleation Sarvanga Abhyanga (external oleation) with Bala Taila and Sarvanga Bashpa Swedana (External sudation) with Dashamool decoction for 2 days were administered. Patient was advised to have diet that would facilitate Virechana Karma like Mamsa Rasa (soup prepared with meat), Amla Phala Rasa (Sour fruit juices), Chincha Saar (Soup prepared from tamarind), etc.

Pradhana Karma (Main therapeutic procedures)

On day 8, Sarvanga Abhyanaga (Therapeutic massage) and Swedana was done followed by Special Virechana tablet intake and Virechana tablet containing ingredients like Haritaki, Katuka, Bahava, Sonamukhi, Trivrit, Snuhikshir, Shuddha Jaipal. Special Virechana tablet contains ingredients namely Trivrit, Shunthi, Tankana, Pipplai, Marich and Jaipala. These ingredients predominantly have Deepana, Pachana, Rechana and Vata-Kapha Hara action, thus helpful in reducing in condition of hypothyroidism. Patient was instructed to take sip of Ushna Jala (lukewarm water) frequently and wait for Vega (motion). Patient was instructed not to strain during defecation. First motion was observed after 45 minutes of intake of Aushadha. Total 14 Vegas were observed.

Paschat Karma (Post therapy procedures)

Patient was instructed to follow Samsarjan Krama (post therapy dietetic regimen for revival) after Virechana for 5 days. After 5 days patient was advised to start food consumption with light to digest foods like amaranthus, moong dal and rice, Draksha (dried grapes), etc. No consumption of red meat, alcohol, junk food, stale food was advised.

Basti Chikitsa

15 days post Virechana, Yoga Basti was administered for 8 days. 5 Anuvasana Basti with Sahachar Taila and 3 Niruha Basti with Dashamool decoction were given. The concept of thyroid-gut connection gives an idea of how basti affects thyroid functions. A significant 20% of thyroid function is dependent on a sufficient supply of healthy gut bacteria to convert T4 into T3. When diets are poor and digestion fails, dysbiosis, or an overabundance of bad bacteria, prevents the production of active thyroid hormone. Basti combats this by its action i.e., due to its Virya, Basti spreads in the entire body. The enteric nervous system, or second brain, works in conjunction with the central nervous system. Thus, Basti may act on ENS receptors to stimulate the CNS, which then stimulates the HPT axis, resulting in normal thyroid hormone secretion.

Shamana Chikitsa

After 15 days of Shodhana Karma patient was administered Shamana Chikitsa (Palliative treatment) for further management.

Table 2: Shamana Chikitsa in detail

<table>
<thead>
<tr>
<th>SN</th>
<th>Name of medicine</th>
<th>Dose</th>
<th>Duration</th>
<th>Before/After food</th>
<th>Anupana</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tablet Amrutarasa</td>
<td>2 tablets BD</td>
<td>2 months</td>
<td>After food</td>
<td>Warm water</td>
</tr>
<tr>
<td>2.</td>
<td>Tablet Granthihar</td>
<td>2 tablets BD</td>
<td>2 months</td>
<td>After food</td>
<td>Warm water</td>
</tr>
<tr>
<td>3.</td>
<td>Tablet Metaboost</td>
<td>2 tablets BD</td>
<td>2 months</td>
<td>After food</td>
<td>Warm water</td>
</tr>
<tr>
<td>4.</td>
<td>Tablet Sumedha</td>
<td>2 tablets BD</td>
<td>2 months</td>
<td>After food</td>
<td>Warm water</td>
</tr>
</tbody>
</table>

BD: Twice a day

Tablet Sumedha

It contains ingredients namely Shankhpushpi (Evolvulus alsinoides) Ghan, Brahmi (Herpestismonniera) Ghan, Kushmand (Cucurbita pepo) fruit Ghan, Mundi (Sapheranthus indicus) Ghan, Jhotismati Tail (Celastrus paniculatus) seed oil, Jatamansi (Nardostachys jatamansi) rhizome Ghan, Vacha (Acorus calamus) rhizome, Shatavari (Asparagus racemosus) root Ghana. These ingredients have Medhya (nootropic action), Balya, Smrutikara action. The brain is a major target organ for thyroid hormones, and adult-onset hypothyroidism can have significant

The brain is a major target organ for thyroid hormones, Medhya (nootropic action), Balya, Smrutikara action. The brain is a major target organ for thyroid hormones, and adult-onset hypothyroidism can have significant
effects on neuropsychiatric function.[4] Brahmi possess memory enhancing property along with its anxiolytic activity.[5] Studies prove that Kushmandadi Ghrita show significant result in the management Chittodvega (anxiety disorders). The action has been attributed to the Medhya Prabhava as described in Ayurveda. Similar studies done on Shankhpushpi, Mundi, Jhotismati, Vacha prove their efficacy in treating anxiety and memory disorders.

**Tablet Amrutarasa**

It contains ingredients namely Amalaka (Emblica officinalis), Tankan (Sodi bioboras), Abhrak Bhasma (Mica), Shunthi (Zinziber officinale) rhizome, Marich (Piper nigrum), Pippali (Piper longum), Tamra Bhasma (Cuprum), Dalchini (Cinnamomum zeylenicum), Tejapatra (Cinnamomum tamala), Ela (Elettaria cardamomum), Nagakeshar (Mesua ferrea), Shankh Bhasma (Turbinella rappa), Bilva (Aegle marmelos), Karchur (Curcuma zedoria), Vacha (Acorus calamus), Yashtimadhu (Glycerrhiza glabra), Triphala, Bhavana Maka Swarasa. These ingredients show Deepana, Pachana, Vata-Kapha-hara action. Thus, show significant action on symptoms like sudden weight gain, constipation, tiredness etc.

**Tablet Metaboost**

It contains ingredients namely Pushkarmoola (Inula racemosa), Shuddha Guggulu (Balsamodendron mukul), Arjuna (Terminalia arjuna), Chitraka (Plumbago zeylanica), Amlavetas (Garcinia pendenculata), Yavani (Trachysperum ammi), Karchura (Curcuma zedoria), Jaharmohra Pishthi (Serpentine stone), Haritaki (Terminalia chebula), Chavya (Piper chaba), Kutaj (Holarrhena antidysentrica), Moti Pishthi, Abhrak Bhasma (Mica), Pippali (Piper longum), Shunthi (Zingiber officinale), Kankola (Piper cubeba), Vacha (Acorus calamus), Saindhav, Hingu (Ferula narthex), Marich (Piper nigrum), Sanchala, Yavakshara, Bid-Lavana. These ingredients act on overall metabolism of body and help to regulate the digestion and excretion process.

**RESULT**

Follow up was taken after every 2 months to check any recurrence of symptoms. First follow up was taken on 21/01/2023 where patient showed relief in symptoms like tiredness, lack of concentration and constipation. Second follow-up was taken on 25/03/2023 where patient was relieved from all the symptoms and experienced reduction in weight by 5 kg. Third follow-up was taken on 28/05/2023. Patient experienced no symptoms and had a healthy daily routine. Medicines were continued for next three months. After 3 months Thyroid profile was repeated. The report showed significant reduction in TSH levels (10.60 to 4.08 µU/ml). Fig.1 and 2.


**DISCUSSION**

Hypothyroidism is a pathological condition of thyroid gland with deficiency of thyroid gland hormones. On the basis of Ayurvedic fundamentals it becomes evident that *Kapha* associated with *Pitta Dushhti* and vitiation of *Vata* result in vitiation of *Agni*. All these factors lead to *Annavaha* and *Rasavaha Srotodushtri* predominantly. As there is no direct correlation of hypothyroidism in Ayurvedic classics, based on the *Lakshanas* it can be considered under the *Bahudoshavastha*.

*Samshodhana* is indicated in *Bahudoshavastha* (i.e., when *Doshas* are aggravated). Some diseases like *Sthoulya*, *Tandra excess Kapha* and *Pitta Doshha*, *Santarpana Janya Vyadhi* are included in *Bahudoshavastha Lakshanas*. As patient is suffering from digestive disturbances, constipation, *Mandagni* etc. which indicates the involvement of *Pittasthana*. *Virechana* is the best treatment for *Pitta* associated with *Kapha* or *Vata*, and eliminates *Pitta* from *Pittasthana* and *Kaphasthana*. Production of *Ama* is the result of *Avarana* of *Pittasthana* by *Kledakakapha*, thus hampering the digestive activity of the *Pachaka Pitta*. *Snehapana* is done by *Panchatikta Gritha* as it is used in the preparatory procedure of *Panchakarma* and *Jatrurdhavagata Vyadhi*. And also, it acts on *Tridosha* and bring the *Dosha* from *Shakha* to *Kostha*.

**Mode of action of Virechana Karma**

*Virechana* drug possessing properties like *Ushna*, *Teeksha*, *Sukshma*, *Vyavayi*, and *Vikasi* reaches the *Hridaya* by virtue of its *Veerya* and then following the *Dhamani*, it pervades the whole body through large and small *Srotas* and removes the *Doshas* out of the body. *Virechana* drugs carry out the therapeutic purgation due to their *Prabhava* (potency). As these drugs are having *Jala* and *Prithvi Mahabhuta* dominancy, they have natural tendency to go downward and thus they can help in induction of purgation.

Constipation, a common symptom encountered in cases of hypothyroidism, is believed to impair hormonal clearance and causes elevation in estrogen, which in turn increases the thyroid-binding globulin levels and decreases the amount of free thyroid hormone available to the body. Hence administration of *Virechana* and *Basti* help in alleviating this symptom seen in most hypothyroidism cases.

**Basti**

*Basti* was administered in patient for seven days. *Anuvasana* and *Niruha Basti* were given alternately with *Sahachar Taila* and *Dashmooala* decoction respectively.

*Basti* acts at enteric nervous system and influences cellular level. Stimulates HPT axis by virtue of thyroid gut connection. As per Research, *Lekhana Basti* is effective in the management of hypothyroidism. It does *Shaman* of *Vata* which is *Avrita* by *Kapha Dosha*.

**CONCLUSION**

The study concluded that combining Ayurvedic medicine with proper *Panchakarma* procedure has a beneficial effect on hypothyroidism. Thus, helpful in reduction of sign and symptoms of hypothyroidism. At the end of therapy, there was improvement in clinical symptoms and no adverse effects were observed.

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