CASE STUDY

Ayurvedic Management of Hypothyroidism: A Case Study

Madhumati Chidre¹*, R.S. Dhimdhime², K.B. Pawar³ and Prashant Baghel⁴

¹-⁴Dept. of Kriyasharir, Government Ayurvedic College, Osmanabad, Maharashtra, India

ABSTRACT

Hypothyroidism is the underactivity of the thyroid gland that leads to inadequate production of thyroid hormones and a slowing of vital body functions. Hypothyroidism is the most common endocrine disorder observed in 5% population, mainly females in present time. Thyroxin is the only means for combating this problem in the patients of hypothyroidism. External thyroxin supplementation is not only a burden but it leaves the patients without actually treating the underlying cause. Ayurveda plays an important role to rule out the underlying cause and treat it. In Ayurveda, it can be correlated with Kapha dosha dushti, Rasavaha Strotasadushti, Medadoshti and Manovaha Strotus dushti. In this case study, the primary aim was to manage Hypothyroidism with Ayurvedic medicine. Patient was treated by oral medications and Panchakarma therapies like Vamana, Shirodhara, Nasya etc. The present case study has focused effectiveness of Ayurvedic therapy in primary hypothyroidism.

KEYWORDS

Hypothyroidism, Kapha Dosha, Rasavaha Strotasa, Medovaha Strotasa, Manovaha Strotus
INTRODUCTION
Hypothyroidism is the major endocrine disorder seen in general population. It is a condition in which the thyroid gland fails to produce hormone adequately, which may be due to dysfunction of thyroid itself or it may be at the level of Pituitary gland or at the level of Hypothalamus. When it is at the level of thyroid gland, it is called as primary hypothyroidism. This condition leads to the reduction in basal metabolic rate, affect physical and mental growth during infancy or childhood. Females have to be more affected than males (6:1 ratio). It is the most common endocrine disorder after Diabetes.

The prevalence of hypothyroidism in India is about 10%\(^1\). In today’s hi-tech and competitive world, people are leading a stressful life and as the thyroid gland is very sensitive to stimuli like stress and anxiety, the global incidence of hypothyroidism is increasing. Recent statistical analysis reveals that deficiency of iodine in the diet is the most common cause of this condition. According to World Health Organization, 2 billion people are iodine deficient worldwide. The relative iodine deficiency causes Goiter and severe deficiency causes Hypothyroidism (in adults) & Cretinism (in children).

As Ayurvedic point of view, Kapha is vitiated and predominant in hypothyroidism. With Kapha, Rasavaha strotas dushti, Meda dushti and Manovaha Strotasa Dushti also occur. Due to Jatharagni mandya, at first Rasavaha strotasadushti and kapha dosh dushti occurs (sub-dosha affected is Avalambaka kapha). The thyroid gland is part of the Rasavasa strotas as it is mainly a hypervascular epithelial tissue. Rasa and Kapha Dushti simultenious leads to Meda and Manovaha Strotasa Dushti.

Hypothyroidism is associated with various pathological states that render person dependent on hormone replacement therapy lifelong. Management of hypothyroidism with modern drugs may bring the value of TFT to normal range but the symptoms and side effects are not totally cured. Hence, it calls for the understanding of ayurvedic concept of this disease and establishing the management of hypothyroidism through Ayurvedic principles.

CASE REPORT
A female patient of 30 years old, housewife at Dist.Osmanabad (Maharashtra, India), OPD registration no. 11222 came in OPD no. 13 of Panchakarma Department in Govt. Ayurvedic College & Hospital Osmanabad, Maharashtra.

Case History:
Patient name- ABC
Age - 30 yrs
Sex – Female
Occupation- Housewife
Weight-72kg
C/O-
  ● Anorexia, (all these symptoms since 6 months)
  ● Palpitation,
  ● Swelling all over body,
  ● recurrent cough and cold,
  ● Insomnia,
  ● Hair loss
  ● laziness,
  ● constipation

History of present illness
Patient was known case of hypothyroidism since 6 months and was taking Tab Thyroxin 125mcg once a day since last 6months
Tab Alprazolam 0.5mg once at night since 1 month
Syr. Crimaffin 10ml once at night

Past History:
No/h/o- HTN/DM/PTB/BA/Epilepsy/ or any other serious medical illness
No/h/o-Any surgical illness
Family History- NAD

O/E:
  GC- Fair, Afebrile
  Pulse-70/min
  BP- 110/70mg

S/E:
  RS- Air entry bilaterally equal and clear
  CNS- Conscious and well oriented
  CVS- S1S2 normal, no added sound
  All routine investigations of patient was within normal limits.

Diagnosis:
Thyroid Function Test - Before treatment hormonal level was
T3-70, T4-4.5, TSH- 9.04.

MATERIALS AND METHODS
The patient had complaints of Anorexia, Palpitation, Swelling all over body and insomnia, recurrent cough and cold, hair loss, laziness, constipation since last 6 months.
Ayurvedic management for Hypothyroidism is given as:
Table No.1 – Oral Medication
Table No.2 – Panchakarma Procedures
Table No.3 – Allopathic Medication
Table No.4 – Hormonal Level

<table>
<thead>
<tr>
<th>No.</th>
<th>Formulations</th>
<th>Dose and Time</th>
<th>Anupana</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Trikatu Churna (3gm)</td>
<td>BD before meal</td>
<td>Rasapachaka Kwatha (20ml)</td>
</tr>
<tr>
<td>2.</td>
<td>Chitrakadi Vati (500mg)</td>
<td>BD between meal</td>
<td>Luke Warm water</td>
</tr>
<tr>
<td>3.</td>
<td>Aarogyavardhini vati (500mg)</td>
<td>BD after meal</td>
<td>Luke Warm water</td>
</tr>
<tr>
<td>4.</td>
<td>Kanchanar guggul (500mg)</td>
<td>BD after meal</td>
<td>Luke Warm water</td>
</tr>
<tr>
<td>5.</td>
<td>Haritaki Churna (3gm)</td>
<td>At night</td>
<td>Luke Warm water</td>
</tr>
</tbody>
</table>

Table 2 Panchakarma Therapies
Sr. no. | Panchakarma Therapy | Formulations | Duration
--- | --- | --- | ---

2. | Nasya | Shadabhinda Tail | 1 month
3. | Shirodhara | Til Tail(500ml)+Jatamansi Tail(300ml) | 1 month
4. | Lepa (Local application) | Kombadanakhilepa | [At Thyroid Region externally]

**Table 3** Allopathic Medication

<table>
<thead>
<tr>
<th>Sr. no.</th>
<th>Medicines</th>
<th>Before Treatment</th>
<th>After week</th>
<th>After 15 days</th>
<th>After one and half month</th>
<th>After three months</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tab. Thyroxin</td>
<td>125 mcg</td>
<td>75 mcg</td>
<td>50 mcg</td>
<td>25 mcg</td>
<td>Stopped</td>
</tr>
<tr>
<td>2.</td>
<td>Tab. Alprazolam</td>
<td>0.5 mg</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3.</td>
<td>Syr. Cremaffin</td>
<td>10 ml</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Observations and Results**

- First follow-up (after 1 week) - The symptoms of palpitation, anorexia, insomnia, constipation were reduced but not hair loss and swelling. The same treatment was continued and dose of Tab Thyroxin was further reduced to 75 mcg / day. Tab Alprazolam and Syr. Cremaffin was stopped.
- Second follow-up (after 15 days) - To some extent hair loss and swelling was reduced. The same treatment was continued and dose of Tab Thyroxin was further reduced to 50 mcg / day.
- Third follow up (after one & half month) - No any fresh complaints. Patient was feeling better. Weight was reduced by 3kg. TFT was Normal. Tab Arogyavardhini was stopped. Other Treatment continued as same and Tab Thyroxin was further reduced to 25 mcg / day.
- Fourth follow up (after three month) - No any fresh complaints. Patient was feeling better. Weight was reduced by 5 kg. TFT was normal. Then, Tab Thyroxin was totally stopped.

By above treatment patient got 80% relief. Three month follow up was suggested to the Patient for the next one year, along with the TFT report.

**Table 4** Hormonal Level

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>T3</td>
<td>70</td>
<td>90</td>
<td>96</td>
</tr>
<tr>
<td>2.</td>
<td>T4</td>
<td>4.5</td>
<td>4.8</td>
<td>5.5</td>
</tr>
<tr>
<td>3.</td>
<td>TSH</td>
<td>9.04</td>
<td>8.5</td>
<td>6.8</td>
</tr>
</tbody>
</table>

**Discussion**

Initially the patient was taken allopathic medicines for these complaints i.e. Tab. Thyroxin 125mcg, Tab. Alprazolam 0.5mg, Syr. Crimaffin 10ml once at night. By this treatment TFT level became normal but patient was not totally cured symptomatically. As per Ayurvedic view, in
these symptoms Kapha Dosh Dushti, Rasadushti, Manovaha Strotasa Dushti and Meda Dhatudushti through jatharagni and dhatwagni mandya was considered. The treatment was planned based on Dosha Pratyaneeka Chikitsa (against the doshas) than Vyadhi Pratyaneeka Chikitsa (against the symptoms). Regulating agni (digestive power) with dipanas (digestive herbs) to increase metabolism is essential, followed with clearing ama (toxic buildup in the body) with herbs known as pachanas. Lekhanas2 (thermogenic herbs) may be used like Guggulu3. At first Dipana-pachan and Anulomana was done by Trikatu Churna (Shunthi, Maricha, Pippali) with Rasapachaka (Patol Indrayavakutki) kwatha. Rasa Pachak improves Rasagni, helps to produce normal Rasa Dhatu, reduce symptoms caused by Rasa Dhatu Dushti. Chitrakadi vati 500mg BD between meal and Haritaki Churna 5gm once at night with lukewarm water was given. Chitrakadi vati has property of Aamapachana and is indicated in Agnimandya (digestive insufficiency)4 and Haritaki is indicated as Anulomana, hence prescribed. Trikatu churna serves the purpose of deepan (appetizer) and pachana (digestive), thus eliminating the root cause of the disease. In hypothyroidism, correcting the agni (digestive fire) only at the thyroid level is not sufficient but removing the peripheral resistance is also important i.e. removing the avarana (blocking or covering) at the dhatwagni (metabolism at tissue level) level. Also, Pippali (Piper longum Linn) increases the absorption of selenium which is required for the chemical reaction that converts the less active T4 to more active T35-7.

Arogyavardhini vati (Gandhaka, Lohabhasma, Abhrakbhasma, shulbhasma, Triphala, guggul, Chitrakmool, Tikta, Nimbrukshadal ambu) works basically on the medas dhatu and the dhatwagni thus digesting and removing the ama janit medas dhatuvruddhi (increase in medas dhatu that is undigested)8. Kanchnar Guggulu (kanchanar twak, Twak, shunthi, pippali, Ela, Tejapatra, guggul) helps to balance the excess Pitta and Kapha doshas in body as indicated in Granthi, Arbuda. It subsides the Kapha and Meda dushti and helps to reduce the swelling in neck and in goiter. It helps to reduce or break down the deep seated Kapha and supports the digestive fire. It also supports proper circulation of blood & promotes elimination of toxins from body9. Guggul (Commiphora mukul Hook.ex Stocks) is said to be the best vata and medohara (hypolipidaemic) as per Aṣṭanga Sangria. It possesses laghu (light), rukṣha
(dry), sukṣhma (minute) guṇa, uṣṇa virya (hot potency), kaṭu vipaka (pungent in post digestive taste) and lekhana (scraping) property, so it is effective in the management of Kapha-medas predominant disorders like hypothyroidism\textsuperscript{10}. Chitraka and Guggulu has lekhana (Thermogenic) property, hence help to reduce excessive body weight.

Along with oral medicines (as described in Table no.1). Panchakarma therapy (as described in Table no.2) is also important in hypothyroidism. After dipana- pachana and snehapana with Triphala Ghruta, Vaman is helpful as it subsides the symptoms seen due to kapha dosh dushti. Vamana is also useful to increase the jatharagni and dhatwagni.

As hypothyroidism is urdhwajatrugata vyadhi and also Nasya plays an important role in its treatment as it helps to cure the Urdhwajatrugata Vyadhi; so this treatment was adopted for hypothyroidism. Shadbindu Tail contains ushna-tikshna dravyas which causes shodhana and lekhana of kapha dosh. Hence nasya with Shadbindu Tail is prescribed.

Manovaha strotas Dushti is seen by signs and symptoms of patient (like anorexia, mood swing, etc.). For this, Shirodhara is prescribed with Jatamansi Tail and Til Tail. Jatamansi is Medhya (intellect promoting) and works like tranquiliser. Til Tail, by its Ushna property helps to decrease the Kapha dosha dushti.

**CONCLUSION**

Hypothyroidism is not described in Ayurvedic classics, but based on clinical presentation; involved factors in hypothyroidism are Kapha Dosha, Rasa and Medovaha strotas as well as Manovaha strotas. Ayurveda attempts to heal the root imbalance of hypothyroidism rather than treat symptoms for remainder of patient’s life. Management of hypothyroidism with modern drugs may bring the value of TFT to normal range but the symptoms and side effects are not totally cured. Case has been treated with above oral medication and Panchakarma therapies which has been given the satisfactory results.
REFERENCES
3. Ibid. 7-11.