

# Integrative Ayurvedic Management Of Primary Hypothyroidism: A Case Report

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## Abstract: -

### Background:

Hypothyroidism is a common endocrine disorder characterized by reduced thyroid hormone production and associated metabolic disturbances. In Ayurveda, the condition may be correlated with Dhatwagnimandya and Kapha-dominant metabolic impairment. This case report explores the role of integrative Ayurvedic management in primary hypothyroidism.

**Case presentation:** A 33-year-old male presented with complaints of fatigue, weight gain, and constipation for six months. Laboratory investigations revealed markedly elevated thyroid-stimulating hormone (TSH  $\geq 100$   $\mu$ IU/dL) and reduced thyroxine levels (T4 1.63  $\mu$ g/dL), confirming hypothyroidism.

**Intervention:** The patient was treated with classical Ayurvedic therapy including Deepana-Pachana, Snehapana with Panchatikta Ghrita, followed by Vamana Karma. Post-detoxification, the patient received oral medication (Tab. Thyronil 500 mg three times daily) for six months.

**Results:** Progressive improvement was observed in clinical symptoms and thyroid function parameters. TSH levels decreased from  $\geq 100$   $\mu$ IU/dL to 8.19  $\mu$ IU/dL, while T4 improved from 1.63  $\mu$ g/dL to 6.35  $\mu$ g/dL during follow-up. Zulewski clinical score reduced from 8 to 0, indicating resolution of hypothyroid symptoms.

**Conclusion:** The integrative Ayurvedic approach involving Vamana Karma followed by herbal medication showed potential benefits in improving clinical and biochemical parameters in hypothyroidism. Further controlled studies are required to validate these findings.

**Keywords:** Hypothyroidism, Panchakarma, Vamana Karma, Ayurvedic management, Thyroid disorder.

### Introduction: -

Hypothyroidism is a common endocrine disorder characterized by insufficient thyroid hormone production, and has worldwide high prevalence<sup>1</sup>, which recorded 11% in India, 2% in the UK, and 4-6% in the USA<sup>2</sup>, in India, one out of every ten people depend on hormonal pills<sup>3</sup>. This highly prevalent disease has its outset in symptoms as mild as cold intolerance to decreased BMR, dry, cool skin, myxedema, weight gain, fatigue, depression, constipation, and in worst-case scenarios, growth or mental retardation in infants and young mothers. The incapability of withstanding physical activity also forms one of the common symptoms hinting at how hypothyroidism affects lifestyle<sup>4</sup>.

Hypothyroidism can be understood as a condition stemming from Agnimandya (Sluggish metabolism), Specifically affecting Rasa and Meda dhatwagni (Fat tissue metabolism), results in increased production of Mala (waste products) of the Rasa dhatu, leading to symptoms resembling hypothyroidism. Impaired metabolism of fats also contributes to undesired weight gain<sup>5,6</sup>. The Ayurveda treatment approach looks towards the re-ignition of Agni or digestive and metabolic fire for retorting to normalcy<sup>7</sup>.

Vamana Karma (Therapeutic Emesis) enhances Agni (Metabolism). Ayurvedic therapeutic principles aim to restore metabolic balance and improve physiological functioning, so Vamana followed by oral medication could be a good treatment option for Hypothyroidism<sup>8</sup>, hence proposed Treatment plan which can be standard protocol for hypothyroidism from Ayurveda background.

## Case Report:

### Patients Information

A 33-year-old male presented to the Panchakarma outpatient department with complaints of progressive weight gain, lethargy, fatigue, and constipation for the past six months. His height was 165 cm and body weight was 87 kg. The patient reported daily consumption of fast foods with minimal intake of fruits and vegetables. Irregular work shifts resulted in poor sleep quality. Micturition was normal, while bowel habits were characterized by chronic constipation with difficult evacuation. There was no history of smoking, alcohol consumption, or drug exposure.

### Clinical findings

The patient presented with symptoms suggestive of hypothyroidism, including weight gain, fatigue, cold intolerance, dry skin, and chronic constipation. These symptoms had gradually progressed over the previous six months and affected his daily activities.

Initial clinical evaluation and thyroid function testing indicated severe hypothyroidism, with markedly elevated thyroid-stimulating hormone (TSH) levels and reduced thyroxine levels.

### Examinations: -

Ashta Vidha Pariksha is one of the diagnostic approaches available in Ayurveda, which evaluates specific essential parameters to know the dosha imbalances of the patient and his general health status. The following case provides the details of this assessment:

**Table 1- Eight-Fold Examination or Ashta Vidha Pariksha<sup>9</sup>.**

Parameter	Observation	Inference
Nadi (Pulse)	Kapha-Pradhana Nadi (dominant Kapha characteristics), sluggish and deep	Indicative of Kapha imbalance with Agnimandya (sluggish metabolism).
Mala (Stool)	Constipated, complex, infrequent bowel movements	Suggestive of vitiated Apana Vayu and Kapha dominance.
Mutra (Urine)	Pale yellow, reduced frequency	Indicative of Kapha dominance with mild Rasadushti (impaired tissue nutrition).
Jiva (Tongue)	Sam Jivha (coated white tongue)	Suggestive of Kapha aggravation and Ama (toxins).
Shabda (Voice)	Soft, slightly hoarse	Reflective of Kapha dominance.
Sparsha (Skin)	Dry, cold to touch	Indicative of Vata and Kapha vitiation.
Drik (Eyes)	Dull, with slight puffiness around eyelids	Suggestive of Kapha imbalance and Rasadushti.
Akruti (Appearance)	Stout, with visible weight gain	Kapha dominance leads to slow metabolism and weight retention.

The Srotas (body channels) examination was conducted to evaluate the functional status of the various physiological systems in the patient. Below is the detailed assessment:

**Table 2: Srotas Parikshan (Examination of Channels)<sup>10</sup>.**

Srotas	Observation	Inference
Rasavaha Srotas	Loss of lightness, heaviness in the body	Indicative of Kapha obstruction and Ama accumulation.
Medovaha Srotas	Progressive weight gain	Suggestive of impaired fat metabolism (Meda Dhatwagni).

Purishavaha Srotas	Infrequent, hard stools	Indicative of Apana Vayu and Kapha vitiation.
Mutravaha Srotas	Reduced urination, pale yellow urine	Mild obstruction due to Kapha dominance.
Manovaha Srotas	Lethargy, reduced enthusiasm, and mental fatigue	Indicative of Kapha-induced sluggishness and Rasadushti.
Annavaha Srotas	Slow digestion, heaviness post-meals	Indicative of weak Jatharagni (digestive fire).

**Note-** These tests depict the patient's systemic dysfunction, doshic imbalance, Kapha predominance, and metabolic impairments relevant to the Ayurveda diagnostic findings of Dhatwagnimandya and Rasadushti. This diagnostic base led the treatment process.

#### Final Diagnosis: -

The diagnosed case was that of Primary Hypothyroidism, which in Ayurveda takes the form of Dhatwagnimandya-impaired tissue metabolism and Kapha-pradhan Rasadushti-Kapha-dominant impairment in tissue nutrition. Therefore, this clinical presentation confirmed both systemic imbalances of Kapha and Ama with secondary involvement of Vata dosha, causing slow metabolism and hypothyroid symptoms.

**Table 3: Timeline**

Sr. No.	Time Point	Clinical Event
	6 months before consultation	Gradual onset of weight gain, lethargy, fatigue, constipation
	Day 0	Patient visited Panchakarma OPD; thyroid function tests confirmed hypothyroidism
	Day 13–19	Deepana–Pachana therapy administered
	Day 20–26	Snehapana with Panchatikta Ghrita
	Day 27–29	Abhyanga and Bashpa-Swedana
	Day 29	Vamana Karma performed
	Day 29–35	Samsarjana Krama (Post Vamana Therapeutic Dietary Management) Oral medication (Tab. Thyronil 500 mg TDS) started
	2 months	First follow-up with clinical evaluation and thyroid function tests
	2 months	Second follow-up with clinical evaluation and thyroid function tests
	2 months	Third follow-up with clinical evaluation and thyroid function tests

#### Therapeutic intervention: -

The six-step Vamana Karma procedure highlights gradual preparation involving dietary adjustments, detoxification, and post-procedure recuperative measures toward metabolic and doshic balance in Ayurveda treatment, as shown in Tables 4 and 5.

**Table 4: Steps of Vamana Karma (Therapeutic Emesis)**

Sr. no.	Steps	Medicine	Dates	Days	Duration
1.	Deepana Pachana	Hingvashtak churna Chitrakadi vati	19 to 24 February 2023	1 <sup>st</sup> to 6 <sup>th</sup> day	6 Days

2.	<b>Snehapana (Oral Administration of Medicated Ghee)</b>	Panchatikta Ghrita	25 February to 3 March 2023	7 <sup>th</sup> to 13 <sup>th</sup> day	7 Days
3.	<b>Abhyanga</b>	Tila Taila	3 and 4 March 2023	On 14 <sup>th</sup> & 15 <sup>th</sup> day	2 Days
4.	<b>Bashpa-Swedana</b>	Steam of Decoction of Dashamula	3 and 4 March 2023	On 14 <sup>th</sup> & 15 <sup>th</sup> day	2 Days
5.	<b>Vamana Karma (Therapeutic Emesis)</b>	Vamak Dravya – Madanphala Pippali Churna, Vamanopaga Dravya - Yashtimadhu Kwatha	4 March 2023	On 15 <sup>th</sup> day	1 Day
6.	<b>Samsarjan Krama (post detoxification dietary regimen)</b>	The Pravara Shudhi recommends consuming 3 Annakal diets: Peya, Vilepi, Akruta Yusha, Kruta Yusha and Mansarasa	4 to 10 March 2023	16 <sup>th</sup> to 22 <sup>th</sup> day	7 Days
	<b>Total</b>				<b>25 Days</b>

### **Vamana Karma**

Vamana Karma is one of the therapeutic emesis therapies in Ayurveda, which works systematically in eliminating Kapha dosha and balancing body elements, thus helping improve digestive and metabolic functions.

### **Vamana Karma (Therapeutic Emesis) Protocol** <sup>11,12, 13</sup>

#### **Pre-Procedure of Vamana Karma**

The patient was treated with Deepana and Pachana (stimulation of digestion) for six days with Hingvashtak Churna (500 mg) thrice after meals, in addition to Chitrakadi Vati (500 mg). Then, Shodhana Snehapana (internal oleation) was done with Panchatikta Ghrita in gradually increasing dosages over seven days, starting from 30 ml to 220 ml daily. He can exhibit the symptoms of proper oleation like being oily with skin lightness of the body, and looseness of stools. On the final day of the oleation, the patient underwent Abhyanga (an entire body massage with sesame oil) and Bashpa-Swedana (steam therapy) for two consecutive days as a pre-procedure preparation.

#### **Main Procedure of Vamana Karma**

On Vamana Karma day, the patient had taken a Kapha-aggravating diet at night, such as curd with rice. The emetic preparation consisted of Madanaphala Pippali Churna (7 gm), Saindhava or rock salt (10 gm), and Madhu or honey (40 gm). After the administration of Yashtimadhu Kwath, the patient was made to vomit till Samyak Lakshana of proper therapeutic emesis was attained.

#### **Post Procedure of Vamana Karma**

He was maintained over seven days on Sansarjana Krama as he gradually advanced from Peya to a regular diet. Subsequently, he was treated with Tab. Thyronil 500 mg thrice daily for six months after detoxification.

#### **Duration of Therapy**

The entire treatment period, including pre-treatment, Vamana Karma, and post-treatment care, is 25 days. Six months of oral drug intake with clinical and biochemical evaluation every two months had been continued.

**Table 5: Ayurveda Oral Medication Post-Treatment**

Sr. No.	Name of Medicine	Route of Administration	Dose	Duration	Time line
1	Tab. Thyronil (Bhardwaj Pharmacy)	Oral Route	500 mg TDS	2 Months	22/3/2023 To 15/5/2023
2	Tab. Thyronil (Bhardwaj Pharmacy)	Oral Route	500 mg TDS	2 Months	16/5/2023 To 14/7/2023
3	Tab. Thyronil (Bhardwaj Pharmacy)	Oral Route	500 mg TDS	2 Months	15/7/2023 To 12/9/2023

**Footnote:** The post-detoxification, Ayurvedic oral medications like Tab. Thyronil are used to manage thyroid health and hormonal balance by leveraging natural ingredients with proven therapeutic effects.

**Assessment Criteria:**

Clinical Assessment was based on Zulewski score<sup>14</sup>, while objective assessment focused on TSH, T3, and T4 levels before and after the treatment i.e. Vamana Karma (Therapeutic Emesis) along with ayurvedic oral medicine.

**The Outcome Of The Vamana Karma (Therapeutic Emesis) Followed By Oral Medication:**

The patient's thyroid function was evaluated following Vamana Karma (Therapeutic Emesis) and seven-month course of Tab. Thyronil (Bhardwaj Pharmacy), based on reports of T3, T4, and TSH levels as well as a clinical examination. The following favourable results were mentioned.

1. Substantial clinical improvement observed in the patient's overall health.
2. Significant enhancements in thyroid function indicators, specifically noted in TSH and T4 levels.

**Table 6: Pre and Post-Treatment Biochemical Analyses**

Sr. No.	Parameters	Before Treatment	First Follow up	Second Follow up	Third Follow up	Normal Values
1	T3 (ng/dL)	0.78	1.13	1.21	1.13	0.64 – 1.52
2	T4 (µg/dL)	1.63	4.41	6.21	6.35	4.87 – 11.72
3	TSH (µIU/ml)	≥100	31.30	14.11	8.19	0.4 – 4.5
4	BMI (kg/m <sup>2</sup> )	32	33.5	29.8	28.7	18.5 – 24.9

**Footnote:** Biochemical parameters showed progressive improvement during treatment and attained near-normal values at the end of the sixth month. This buttresses the viewpoint of the effectiveness of integrative Ayurvedic protocols in improving thyroid function and metabolic health, as shown in Table 6.

Investigation Reports: Fig. 1:

**Figure 1: Thyroid function test Before Treatment**



**Figure 2: First Follow-up investigation report (After *Vamana* + 2 months of Ayurvedic medication)**



**Figure 3: First Follow-up investigation report (After 4 months of Ayurvedic medication)**



**Figure 4: First Follow-up investigation report (After 6 months of Ayurvedic medication)**



**Table 7: Pre and Post-Treatment Zulewski score<sup>15</sup>**

Sr. No.	Symptoms	Before Treatment	First Follow up	Second Follow up	Third Follow up
	Diminished sweating	1	1	0	0
	Hoarseness	0	0	0	0
	Paraesthesia	0	0	0	
	Dry skin	1	1	1	0
	Constipation	1	1	0	0

	Impairment of hearing	0	0	0	0
	Weight increase	1	0	0	0
	Slow movements	1	1	0	0
	Delayed ankle reflex	1	1	1	0
	Coarse skin	1	1	1	0
	Cold skin	1	1	0	0
<b>Total</b>		<b>8</b>	<b>7</b>	<b>3</b>	<b>0</b>

Note - Clinical symptoms were assessed using the Zulewski clinical scoring system, where 1 indicates the presence of a symptom and 0 indicates absence.

**Table 8: Interpretation Table of Zulewski score**

<b>Time Line</b>	<b>Before Treatment</b>	<b>First Follow up</b>	<b>Second Follow up</b>	<b>Third Follow up</b>
<b>Total Score</b>	8	7	3	0
<b>Interpretation</b>	Strong clinical features of hypothyroidism	Mild improvement but still hypothyroid	Moderate improvement	Symptoms resolved, clinically euthyroid

Footnote - The Zulewski clinical score decreased from 8 before treatment to 0 after 6 months, indicating marked improvement in hypothyroid symptoms, which correlated with normalization of thyroid function tests.

Clinical improvement was assessed using the Zulewski clinical score, which evaluates common signs and symptoms associated with hypothyroidism. Before treatment, the patient had a Zulewski score of 8, indicating the presence of multiple hypothyroid features such as diminished sweating, paraesthesia, dry skin, constipation, weight gain, slow movements, delayed ankle reflex, coarse skin, and cold skin. After two months of treatment, the score reduced to 7, suggesting partial symptomatic relief. Further improvement was observed at four months, where the score decreased to 3, indicating significant reduction in clinical manifestations. At the end of six months of treatment, the Zulewski score reached 0, demonstrating complete resolution of the hypothyroid symptoms and signs.

These clinical findings correlated with the progressive improvement in thyroid function test (TFT) values, where T3 and T4 levels increased toward the normal range and TSH levels showed a marked reduction from  $\geq 100$   $\mu\text{IU/mL}$  to 8.19  $\mu\text{IU/dL}$  over the treatment period. The reduction in clinical score along with normalization of biochemical parameters indicates the effectiveness of the therapeutic intervention in restoring thyroid function and improving the patient's overall metabolic status.

#### **Discussion: -**

Conventional medicine manages the pervasive endocrinological disorder of hypothyroidism with synthetic replacement therapy. This method can be very effective, but its administration and monitoring span a person's whole life, again a source of dependency and side effects. The current case study aims to prove the possibility of alternative treatment approaches, such as combining Vamana Karma in the management of hypothyroidism<sup>16</sup>.

The Hypothyroidism closely resemble manifestations of Dhatwagnimandya (Impaired tissue metabolism), Kaphaprakopa (Vitiating of Kapha), and Rasadushti (Impairment of tissue nutrition). Vamana Karma (Therapeutic Emesis) is recommended as the primary Panchakarma treatment for this condition due to its ability to address these imbalances<sup>17</sup>.

Therefore, the Enhancement of Agni (Digestive fire) through Vamana Karma (Therapeutic Emesis) also enhances Dhatwagni (Tissue metabolism), this perspective underscores that Agni in Ayurveda

correlates with overall body metabolism, highlighting the importance of balancing and optimizing Agni for holistic health and wellness<sup>18</sup>.

In the present case, Thyronil tablets from Bharadwaj Pharmacy were used to treat hypothyroidism after Vamana Karma. This led to noticeable improvements in TSH and T4 levels, weight, and general health. Vamana Karma helps eliminate vitiated Kapha Dosha and improves metabolism, while Tablet Thyronil from Bharadwaj Pharmacy contains beneficial ingredients such as Kanchar Guggulu, Kanchar Ghanavati, and Gandamala Kandan Ras, all of which are effective in treating hypothyroidism. Together, this combination offers a holistic approach to managing hypothyroidism by addressing both Doshic imbalances, Hormonal imbalance and overall health<sup>19,20</sup>.

After diagnosis, typically Hypothyroidism requires lifelong reliance on external thyroxine therapy, which may have side effects such as an increased risk of heart disease, osteoporosis, and fractures<sup>21</sup>.

However, the detoxification procedure like Vamana Karma followed by Ayurvedic medication, may serve as a complementary therapeutic approach. Additionally, Ayurvedic detoxification procedures can be an effective preventive measure for hypothyroidism without any side-effects.

### **Clinical and Biochemical Results**

In clinical and biochemical terms, the patient was significantly improved by the end of the treatment. T3 and T4 started to normalize with serial decreases in TSH levels, indicating better functioning of the thyroid gland. Concurrently, there was also a marked improvement in the symptoms; which were reflected in a Zulewski clinical score, observed outcomes underscore the complementary role of Vamana Karma for rebalancing the internal milieu of the body and oral Ayurvedic medicines for maintaining achieved homeostasis. Thus, this multifaceted approach addresses the very root cause of the condition and is not just like conventional thyroid hormone replacement therapy as a management tool<sup>22</sup>.

### **Mechanism of Action**

The treatment protocol was designed based on classical Ayurvedic principles. The deepana and Pachana preparatory phase enhanced the digestion and metabolism further so that the patient was adequately prepared for detoxification. Snehapana facilitates mobilization of aggravated doshas toward the gastrointestinal tract for elimination.

, and Abhyanga and Bashpa-Swedana removed them. Vamana Karma was chosen as the main detoxifying procedure since it reduced Kapha dosha and Ama.

Thyronil tablets, as taken post-Vamana, persisted to support thyroid health via its herbal constituents, promoting thyroid function and cellular defense against oxidative stress.

These mechanisms may complement biochemical improvements. The slow, sustained decrease of levels of TSH by increased levels of T3 and T4 indicates improved response of the thyroid and reduced tension of the hypothalamic-pituitary axis. These changes indicate restored balance in the endocrine system, an essential goal of the management through Ayurveda<sup>23,24</sup>.

### **Conclusion: -**

This case report suggests that an integrative Ayurvedic approach consisting of Vamana Karma (therapeutic emesis) followed by oral herbal medication (Tab. Thyronil) may contribute to clinical and biochemical improvement in a patient with primary hypothyroidism. The intervention was associated with reduction in hypothyroid symptoms such as fatigue, constipation, and lethargy, along with progressive improvement in thyroid function parameters, including a marked decrease in TSH levels and normalization of T4 levels during the follow-up period.

From an Ayurvedic perspective, Vamana Karma may help eliminate aggravated Kapha and restore Agni (metabolism), while the subsequent herbal medication may support endocrine function and maintain therapeutic outcomes. Although the findings indicate potential benefits of this integrative approach, the evidence is limited to a single case. Therefore, larger clinical studies and controlled trials are required to validate the effectiveness, safety, and long-term outcomes of such Ayurvedic treatment protocols in the management of hypothyroidism.

**Patient Consent:**

Written informed consent was obtained from the patient for publication of clinical details and investigation reports.

**Patient Perspective: -**

The patient expressed satisfaction with the holistic treatment approach. Improvement in energy levels, digestion, and overall wellbeing was reported without experiencing adverse effects commonly associated with synthetic thyroid hormone therapy.

**Acknowledgement: -**

The authors appreciate the medical and Ayurvedic team's planning and delivery of this treatment protocol. Special thanks are required for the cooperation of the patient, who was compliant and committed to the Ayurvedic regimen. Valuable inputs to improve the quality of this case report were received from colleagues and mentors.

**Ethical Consideration: -**

The treatment was given following all the ethical requirements so that the patient's safety, dignity, and privacy were maintained during the entire treatment process, as well as documentation. All diagnostic and therapeutic interventions were performed with informed consent from the patient for the presentation of findings along with related images. It also met the Institutional Ethics Committee to obtain ethical clearance before starting the treatment and documentation of this case.

This case report was prepared in accordance with CARE case report guidelines.

**Conflict Of Interest: -**

The authors declare no conflict of interest in association with the publication of this case report. All the information and interpretations are presented with no strings attached for their academic and clinical development in the area of Ayurvedic treatment for hypothyroidism.

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