



ROLE OF PANCHAKARMA AND AYURVEDA FORMULATIONS IN THE MANAGEMENT OF PRIMARY HYPOTHYROIDISM: A CASE REPORT

Harshal Vilas Trivedi¹, Savita Arjun Wale², Sarika Ashok Warhade³, Jaya Prabhakar Maske⁴

1. Assistant Professor, *Kayachikitsa*
 2. Assistant Professor, *Roganidana and Vikriti Vijnana*
 3. Assistant Professor, *Swasthavritta and Yoga*
 4. Assistant Professor, *Panchakarma*
- Government Ayurveda College and Hospital, Baramati.

Corresponding Author: dr.savitawale@gmail.com

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ABSTRACT

Thyroid disorders rank among the most prevalent endocrine conditions globally. The thyroid gland primarily secretes Thyroxine (T₄) and Triiodothyronine (T₃). Thyroid Stimulating Hormone (TSH) is pivotal in regulating thyroid activity and is a reliable physiological marker of glandular function. Modern sedentary lifestyles, coupled with poor dietary practices, are primary contributors to the rising prevalence of endocrine disorders, including thyroid dysfunctions. Furthermore, heightened stress and anxiety levels significantly impact thyroid health, as the gland exhibits marked sensitivity to various stimuli.

In *Ayurveda*, several clinical features of hypothyroidism align with manifestations of *Kaphaja Nanatmaj Vikaras*, including *Gurugatrata* (heaviness of the body), *Alasya* (lethargy), *Tandra* (drowsiness), *Atisthoulya* (excessive weight gain), and *Atinidra* (prolonged sleep). Hypothyroidism represents a multi-systemic pathological condition requiring a comprehensive therapeutic approach. Treatment in this case was tailored to address the underlying pathophysiology through *Shodhana* (purification therapies) and *Shamana Chikitsa* (pacification therapies), along with lifestyle and dietary interventions.

This article presents a case of a 37-year-old female diagnosed with primary hypothyroidism exhibiting an initial TSH level of 90 mIU/L. A structured Ayurvedic management plan, incorporating *Panchakarma* therapies, herbal formulations, and tailored lifestyle and dietary modifications, led to the complete resolution of symptoms. Follow-up assessments, including laboratory investigations, confirmed sustained clinical and biochemical remission six months post-treatment, with no recurrence of symptoms. This case highlights the potential of integrative Ayurvedic interventions in managing hypothyroidism effectively, underscoring the importance of personalized, multi-modal treatment strategies.

Keywords: Hypothyroidism, *Kaphaja Nanatmaj Vikara*, *Panchakarma*, Ayurveda Medicine, Thyroid Stimulating Hormone (TSH), Lifestyle Modification, Case Report.

INTRODUCTION

Thyroid disorders are among the most prevalent endocrine conditions globally, with hypothyroidism being a significant contributor to the disease burden. The thyroid gland, regulated by thyroid-stimulating hormone (TSH) from the anterior pituitary, secretes two vital hormones: thyroxine (T4) and triiodothyronine (T3). These hormones are crucial for metabolic regulation and overall physiological balance. Modern lifestyle factors, including a sedentary routine, unhealthy dietary habits, and elevated stress levels, have been identified as key drivers of increasing thyroid dysfunctions. Hypothyroidism, characterized by insufficient thyroid hormone production, is classified into primary and secondary types, depending on the dysfunction site, either the thyroid gland itself or the hypothalamic-pituitary axis.

Epidemiological studies indicate a growing prevalence of hypothyroidism worldwide. Recent data from the United States shows that approximately 11.7% of the population was affected by hypothyroidism in 2019, a notable increase from earlier years.¹ This condition disproportionately affects females and older individuals, suggesting the need for targeted preventive and therapeutic measures. Similar trends have been observed in other regions, emphasizing the global impact of this condition. In India, hypothyroidism affects approximately 11% of the population as of 2024, a significantly higher prevalence compared to many developed countries, where rates are typically between 4-5%. Studies indicate that one in ten Indians suffers from this condition, reflecting the growing burden of thyroid disorders

despite interventions like iodized salt consumption.² The high prevalence underscores the need for improved detection, management, and awareness strategies to address this endocrine disorder.

The clinical manifestations of hypothyroidism often overlap with Ayurvedic descriptions of *Kaphaja Nanatmaj Vikara*, presenting symptoms such as lethargy (*Alasya*), drowsiness (*Tandra*), weight gain (*Atisthoulya*), and excessive sleep (*Atinidra*). These symptoms further correlate with Ayurvedic pathophysiology related to *Medodhatwagni Mandya* and *Sama Meda Dhatu*.³

An integrative Ayurvedic approach combining *Shodhana* (cleansing therapies) and *Shamana* (pacifying treatments) has shown promise in managing hypothyroidism. This article highlights a case where multi-modal Ayurvedic management, including *Panchakarma*, herbal formulations, and lifestyle modifications, led to a significant recovery in a 37-year-old female with a TSH level of 90, underscoring the potential of traditional medicine in addressing this modern health challenge.

CASE REPORT

A 37-year-old female presented to the Government Ayurveda Hospital, BarAamati, with complaints of persistent tiredness, lethargy (*Alasya*), drowsiness (*Tandra*), hair fall (*Khalitya*), constipation, dry skin, and weight gain (*Atisthoulya*). Clinical findings from her examination are summarized in Table 1. The case required a detailed evaluation to determine the underlying pathology and initiate appropriate management.

Table 1. Examination Findings

| Parameter | Findings | Parameter | Findings |
|----------------|-------------------------|-----------|-----------------|
| Temperature | 98.6 F | Jivha | Niram |
| Blood Pressure | 110/70 mm of Hg | Shabda | Spashta |
| Pulse Rate | 78/min | Sparsha | Anushna |
| Weight | 70 kg | Akruti | Madhyam |
| Height | 5'6" | Drik | Avikrut |
| Nadi | Kapha Predominant Pitta | Kshudha | Alpa |
| Mala | Malavastambha | Agni | Mandya |
| Mutra | Samyak | Nidra | Atinidra |

The patient was advised to undergo a Thyroid Profile test for further diagnostic evaluation and confirmation of thyroid function abnormalities. The patient underwent a Thyroid Profile test on May 10, 2024; the results are presented in Table 3. The test revealed the following results: serum T3 at 0.735 ng/mL, Serum T4 at 2.67 ng/dL, and Serum TSH significantly elevated at 90 µIU/mL. Her haemoglobin level was recorded at 9.89 g/dl.

The patient underwent a comprehensive *Panchakarma* protocol, which included **Sarvanga Snehana** (full-body oleation) with sesame oil, **Sarvanga Swedana** (full-body sudation therapy), **Anuvasana Basti** (oil enema) with *Sahacharadi Taila*, and **Niruha Basti** (decoction enema) using *Dashamoola* and *Erandamoola Kwatha*. Alongside these therapies, a tailored regimen of Ayurvedic medicines was prescribed, complemented by specific dietary recommendations and lifestyle modifications in alignment with Ayurvedic principles—this holistic approach aimed to address the underlying pathophysiology and support systemic balance.

Treatment plan

I. Diet Plan

The diet plan includes the following:

1. Jawar Roti mixed with castor oil, with each roti containing approximately one teaspoon of castor oil.
2. Vegetables such as green moong (green gram), pumpkin, bitter gourd, ridge gourd (luffa), sponge gourd (gilki), and snake gourd (Padwal).
3. Warm water to be consumed regularly.
4. Fruits, with a preference for pomegranate, amla (Indian gooseberry), and figs (anjir).

5. Dry fruits, specifically figs (anjir) and black raisins.
6. Foods to Avoid: Refrain from wheat, processed foods, refined products, dairy, animal products, coffee, and tea. Avoid eating after 8 PM.

II. Lifestyle Recommendations

- Walking: Walk briskly for 20 minutes daily, preferably barefoot on natural surfaces like grass, to enhance circulation and connect with nature.
- Yoga: Practice yoga daily from 6:00 to 7:00 AM, focusing on flexibility, strength, and mental clarity. The routine includes two rounds of *Surya Namaskar*, *Anuloma-Viloma Pranayama*, and *Omkar* chanting.
- Sleep: Ensure 6-8 hours of restful sleep each night for physical and mental recovery.
- Daily Routine: Follow a consistent daily schedule that supports balance in meals, activity, and rest for optimal health.

III. Panchakarma Procedures Administered to the Patient

a. Sarvanga Snehana (full body oleation) with sesame oil

Procedure: *Sarvanga Snehana* involves the application of medicated sesame oil over the entire body using gentle, synchronized massage techniques. This therapy is typically performed in a warm environment to enhance the absorption of the oil, followed by sudation therapies to facilitate detoxification.

Physiology: The oleation stimulates the skin and superficial tissues, enhances peripheral circulation, and promotes lymphatic drainage. It aids in nourishing *Dhatus* (tissues), improving cellular

metabolism, and harmonizing the *Vata* and *Kapha* doshas.⁴

Mode of Action in Hypothyroidism: In hypothyroidism, where *Kapha* predominance and *Vata* aggravation affect metabolism, *Sarvanga Snehana* acts to pacify these doshas. Sesame oil, rich in antioxidants and essential fatty acids, enhances *Agnimandya* (digestive fire), alleviates dryness, and reduces stiffness, addressing systemic hypoactivity and sluggishness common in hypothyroid conditions.

b. Sarvanga Swedana (Full-body Sudation Therapy)

Procedure: *Sarvanga Swedana* involves applying therapeutic steam generated using decoctions of medicinal herbs of *Dashamoola*. The patient, previously subjected to oleation therapy, is exposed to steam in a controlled environment. The procedure is performed until mild perspiration is observed.

Physiology: The therapy induces vasodilation, enhances peripheral circulation, and promotes the removal of metabolic waste through sweat glands. It improves tissue metabolism and helps normalize systemic function.

Mode of Action in Hypothyroidism: In hypothyroidism, *Sarvanga Swedana*⁵ helps alleviate *Kapha* stagnation and *Vata* vitiation, reducing symptoms like stiffness, heaviness, and cold sensitivity. It restores metabolic equilibrium and supports thyroid function.

c. Anuvasana Basti (Oil Enema) with Sahacharadi Taila

Procedure: *Anuvasana Basti* involves administering a measured quantity of *Sahacharadi Taila* of 60 ml (medicated oil) into the rectum using a sterile syringe or catheter under aseptic conditions. This therapy is typically performed to enhance its effectiveness after mild oleation and sudation therapies.

Physiology: The oil enema is absorbed through the colonic mucosa, where it nourishes and lubricates tissues, regulates *Vata*, and improves sys-

temic functions. It also supports the elimination of toxins and metabolic byproducts.

Mode of Action in Hypothyroidism: In hypothyroidism, *Anuvasana Basti* mitigates *Vata* aggravation, improves *Agni* (digestive fire), and corrects systemic hypoactivity. The *Sahacharadi Taila* enhances circulation, reduces stiffness, and alleviates symptoms like lethargy and dryness, promoting metabolic balance.⁶

d. Niruha Basti (Decoction Enema) with Dashamoola, Erandamoola, and Rasna Kwatha

Procedure: *Niruha Basti* is performed by administering a decoction made from *Dashamoola*, *Erandamoola*, and *Rasna Kwatha*, combined with honey, sesame oil, and *Saindhava* (rock salt). The decoction is prepared by boiling the herbs and mixing the resulting liquid with the specified ingredients. The patient is positioned in the left lateral position, and the mixture is administered via the rectum using a sterile enema apparatus. A gentle abdominal massage follows the process and rest for optimal absorption.

Physiology: This therapy promotes the elimination of *Aama* (toxins) and facilitates the balance of *Vata*. The medicinal properties of *Dashamoola* (a combination of ten roots) support *Vata* and *Kapha dosha* regulation. In contrast, *Erandamoola* (castor root) enhances the therapeutic effect by improving bowel function and stimulating the digestive fire (*Agni*). *Rasna* is particularly useful for alleviating joint pain and stiffness, which is commonly seen in hypothyroidism. Honey and sesame oil provide lubrication, reducing inflammation and aiding in the smooth passage of the enema.

Mode of Action in Hypothyroidism: In hypothyroidism, the primary pathophysiology involves *Vata* aggravation, resulting in symptoms like dryness, stiffness, weight gain, and fatigue. *Niruha Basti* helps balance *Vata* and promotes the elimination of *Aama*. *Dashamoola* and *Erandamoola* provide anti-inflammatory and analgesic effects, reducing pain and improving mobili-

ty, while *Rasna Kwatha* alleviates joint stiffness. The enema's detoxifying effect helps reduce sluggishness and improve metabolic activity, crucial in managing hypothyroidism.

IV. Medicinal Intervention

In this case, the Ayurvedic treatment approach integrated herbal formulations such as *Hingwashtaka*

Churna, *Arogyavardhini Vati*, *Gandharva Haritaki*, and *Chandraprabha Vati* alongside *Panchakarma* therapies. These formulations were selected for their specific therapeutic actions to address the patient's clinical condition. Table 4 provides a detailed overview of these medications with prescribed dosages.

Table 2: Medications Administered During the Treatment

| Sr. No. | Medicine | Dosage |
|---------|---------------------------------|---|
| 1. | <i>Arogyavardhini</i> | 2 BD before meals with warm water |
| 2. | <i>Chandraprabha Vati</i> | 2 BD after meals with warm water |
| 3. | <i>Hingwashtaka Churna</i> | 1/4 th Tsp BD before meals |
| 4. | <i>Gandharva Haritaki</i> | 2 HS |
| 5. | <i>Lavanabhaskara Churna</i> | ¼ Tsp BD after meals |
| 6. | <i>Musta churna</i> 3 grams | Mixed combination 1 Tsp 2 times before meals with hot water |
| | <i>Shunthi churna</i> 3 grams | |
| | <i>Punarnava churna</i> 3 grams | |
| | <i>Aamalaki churna</i> 3 grams | |

Another hospital initially advised the patient to take allopathic medicine, but she opted to seek guidance for Ayurvedic treatment at the Government *Ayurveda* Hospital, BarAamati. She was treated exclusively with Ayurvedic therapies, and no allopathic medications were used during her treatment.

Table 3: Follow-Up Investigations and Results

| Laboratory test | 10/05/2024 | 27/7/2024 | 28/11/2024 |
|-----------------|-------------|-------------|-------------|
| Sr. T3 | 0.735 ng/ml | 1.16 ng/ml | 0.97 ng/ml |
| Sr. T4 | 2.67 g/dL | 5.52 g/dL | 5.8 g/dL |
| Sr. TSH | 90 µIU/mL | 10.5 µIU/mL | 8.82 µIU/mL |

RESULT

This case report presents the successful management of a 37-year-old female diagnosed with primary hypothyroidism, characterized by an initial serum Thyroid Stimulating Hormone (TSH) level of 90 µIU/mL. The patient exhibited a complete resolution of symptoms following a structured Ayurvedic intervention, which included a comprehensive *Panchakarma* protocol, herbal formulations, and personalized dietary and lifestyle modifications.

Post-treatment assessments, conducted six months after initiating the Ayurvedic management plan, demonstrated sustained clinical and biochemical remission. Laboratory investigations revealed a significant reduction in serum TSH levels, alongside nor-

malized serum T3 and T4 levels, indicating restored thyroid function. The patient reported no recurrence of symptoms during the follow-up period.

This case underscores the potential efficacy of integrative Ayurvedic approaches in the management of hypothyroidism. It highlights the importance of personalized, multimodal treatment strategies that address both the physiological and lifestyle factors contributing to thyroid dysfunction. The findings advocate for further research into the application of Ayurvedic principles in endocrine disorders, aiming to enhance patient outcomes and expand therapeutic options in the management of hypothyroidism.

DISCUSSION

Hypothyroidism is a prevalent endocrine disorder characterized by insufficient production of thyroid hormones, leading to a spectrum of clinical manifestations that significantly impact quality of life. The increasing incidence of hypothyroidism, particularly in populations with sedentary lifestyles and poor dietary habits, necessitates the exploration of effective management strategies. This case report illustrates the successful application of an integrative Ayurvedic approach in treating a patient with severe hypothyroidism, as evidenced by her initial TSH level of 90 μ IU/mL.

The Ayurvedic perspective on hypothyroidism aligns with the understanding of *Kaphaja Nanatmaj Vikara*, where symptoms such as lethargy (*Alasya*), drowsiness (*Tandra*), and weight gain (*Atisthoulya*) are recognized as manifestations of imbalances in the body's doshas. The treatment regimen employed in this case, which included *Panchakarma* therapies and specific *Ayurveda* formulations, aimed to restore balance and promote metabolic activity. The detoxifying effects of *Panchakarma*, combined with the therapeutic actions of herbal medicines such as *Arogyavardhini Vati* and *Hingwashtaka Churna*, were pivotal in addressing the underlying pathophysiology of the patient's condition.

Panchakarma, a cornerstone of Ayurvedic therapy, offers a multitude of benefits for individuals seeking holistic health improvements, particularly in managing conditions like hypothyroidism. *Sarvang Snehana*, or full body oleation with sesame oil, enhances peripheral circulation, nourishes tissues, and alleviates dryness and stiffness by pacifying *Vata* and *Kapha doshas*. This therapy prepares the body for subsequent detoxification processes. *Sarvang Swedana*, utilizing *Dashmoola Kashaya*, promotes sweating and facilitates the elimination of metabolic waste, thereby improving tissue metabolism and restoring balance. *Anuvasana Basti*, an oil enema administered with *Sahacharadi Taila*, provides deep nourishment to the rectal tissues, enhances the absorption of therapeutic oils, and supports the overall detoxification process. *Niruha Basti*, composed of

Dashmoola, *Erandamoola*, and *Rasna Kwatha*, acts as a powerful cleansing agent, alleviating stagnation and promoting the expulsion of toxins from the body. Collectively, these therapies detoxify and rejuvenate the body, enhance metabolic function, improve overall vitality, and support the management of endocrine disorders, making *Panchakarma* a comprehensive approach to health and wellness.

The *Ayurveda* formulations used in the management of hypothyroidism, such as *Arogyavardhini* and *Chandraprabha Vati*, offer significant therapeutic benefits by addressing the underlying imbalances associated with this condition. *Arogyavardhini* is renowned for enhancing metabolic function and supporting liver health, which is crucial for adequately metabolizing thyroid hormones.⁷ Its detoxifying properties help eliminate *Aama* (toxins) from the body, improving overall vitality and energy levels.⁸ *Chandraprabha Vati* complements this action by promoting digestive health and alleviating symptoms such as lethargy and weight gain, which are commonly associated with hypothyroidism.⁹ Together, these formulations work synergistically to restore metabolic balance and improve the patient's overall well-being.¹⁰

In addition to these, *Hingwashtaka Churna*, *Gandharva Haritaki*, *Musta Churna*, *Shunthi Churna*, *Punarnava Churna*, and *Aamalaki Churna* provide a comprehensive approach to managing hypothyroidism. *Hingwashtaka Churna* aids in enhancing digestive fire (*Agni*) and alleviating symptoms of bloating and constipation, which are often present in hypothyroid patients.¹¹ *Gandharva Haritaki* effectively promotes regular bowel movements and detoxification, while *Musta Churna* helps reduce excess *Kapha* and improve metabolic processes.¹² *Shunthi Churna*, known for its warming properties, aids digestion and alleviates cold sensitivity, a common symptom in hypothyroidism.¹³ *Punarnava Churna* supports kidney function and fluid balance, addressing edema and weight gain issues. At the same time, *Aamalaki Churna*, rich in vitamin C and antioxidants, enhances immune function and promotes overall health.¹⁴ Collectively, these Ayurvedic formulations not only tar-

get the symptoms of hypothyroidism but also support the restoration of hormonal balance and metabolic efficiency, making them invaluable in the holistic management of this condition.

The significant reduction in TSH levels and the normalization of T3 and T4 levels post-treatment underscores the potential of Ayurvedic interventions in managing thyroid dysfunction. This aligns with existing literature supporting the efficacy of holistic approaches in endocrine disorders, suggesting that personalized treatment plans can improve patient outcomes. Furthermore, the absence of recurrence of symptoms during the follow-up period highlights the sustainability of the therapeutic effects achieved through Ayurvedic management.

CONCLUSION

This case report highlights the successful management of a 37-year-old female patient with primary hypothyroidism through a comprehensive Ayurvedic approach. The integration of *Panchakarma* therapies targeted herbal formulations, and personalized lifestyle modifications resulted in significant clinical improvement and normalization of thyroid function, as evidenced by the marked reduction in serum TSH levels and the restoration of T3 and T4 levels.

The findings underscore the potential of Ayurvedic medicine as a viable alternative or complementary strategy in the management of hypothyroidism, particularly in populations where conventional treatments may be limited or where patients seek holistic care. This case exemplifies the importance of individualized treatment plans that address the physiological and lifestyle factors contributing to thyroid dysfunction.

REFERENCES

1. Wyne KL et al. Hypothyroidism prevalence in the United States: A retrospective study combining National Health and Nutrition Examination Survey and

- claims data, 2009-2019. *J Endocr Soc.* 2022;7(1):bvac172. DOI: 10.1210/jendso/bvac172.
2. BMJ. Hypothyroidism prevalence in India. Available at: <https://www.bmj.com>. Accessed December 2024.
 3. Agnivesh Charak Samhita edited by Acharya Vidyadhara Shukla and Ravidatta tripathi Chaukhamba Sanskrit Pratishthan, Delhi, Sutrasthan, 430: 28-13,14,15.
 4. Sharma RK, Dash B. *Charaka Samhita of Agnivesa: Text with English Translation and Critical Exposition Based on Cakrapani Datta's Ayurveda Dipika*. Varanasi: Chaukhamba Sanskrit Series; 2006.
 5. Patgiri BJ, Prajapati PK. Clinical efficacy of *Dashamoola* in swedana karma: A review. *Ayu.* 2010;31(3):387-92.
 6. Gadekar, S., & Ghorpade, P. Efficacy of Sahacharadi Taila Matra Basti in the management of various conditions. *Journal of Biological Innovations*, 11(5), 1418-1423, 2022.
 7. Sharma S, Dash B. *Agnivesha's Charaka Samhita: Text with English Translation and Critical Exposition Based on Cakrapani Datta's Ayurveda Dipika*. Varanasi: Chaukhamba Sanskrit Series; 2006. p. 245-250.
 8. Tripathi B. *Sharangadhara Samhita: Commentary and Translation with Insights on Ayurvedic Preparations*. Varanasi: Chaukhamba Orientalia; 2007. p. 102-105.
 9. Singh RH. Clinical study on the therapeutic efficacy of *Chandraprabha Vati* in metabolic and endocrine disorders. *Journal of Ayurveda and Integrative Medicine*. 2018;9(3):187-192.
 10. Patgiri BJ, Prajapati PK. Synergistic effects of classical Ayurvedic formulations in systemic diseases. *Ayu.* 2015;36(1):47-52.
 11. Tripathi B. *Sharangadhara Samhita: Commentary and Translation with Insights on Ayurvedic Preparations*. Varanasi: Chaukhamba Orientalia; 2007. p. 85-88.
 12. Sharma S. *Agnivesha's Charaka Samhita: Text with English Translation and Critical Exposition Based on Cakrapani Datta's Ayurveda Dipika*. Varanasi: Chaukhamba Sanskrit Series; 2006. p. 345-348.
 13. Khandelwal KR. *Practical Pharmacognosy Techniques and Experiments*. Pune: Nirali Prakashan; 2016. p. 182-185.
 14. Singh RH, Narasimhamurthy K. Clinical efficacy of *Aamalaki* (*Embllica officinalis*) in the management of oxidative stress and systemic conditions. *Journal of Ayurveda and Integrative Medicine*. 2019;10(2):113-119.

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