

VIRECHANA KARMA AS A DETOXIFICATION APPROACH IN HYPERTHYROIDISM: INSIGHTS FROM A CLINICAL CASE

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ABSTRACT

Hyperthyroidism, particularly when manifesting as Graves' disease, represents a complex autoimmune endocrinopathy characterized by the pathological overproduction of thyroid hormones and a consequent hypermetabolic state.^[1] Within the Ayurvedic perspective, this severe metabolic acceleration closely mirrors *Bhasmaka Roga*^[2] (condition of excessive digestive fire) or *Atyagni* (excessive digestive fire), which is fundamentally driven by an imbalance of *Pitta* (fire and water bio-element) and *Vata Dosha* (air and space bio-element), ultimately leading to *Dhatu Kshaya* (depletion of bodily tissues). This clinical report documents the physiological stabilization and therapeutic management of a 27-year-old male presenting with extreme weight loss of 15 kg, bilateral exophthalmos, and pronounced hand tremors. Laboratory investigations confirmed a severe thyrotoxic state featuring a highly elevated free T3 of 637 pg/dL, free T4 of 19.9 ng/dL,

and a suppressed TSH of <0.005 μ IU/mL. The primary therapeutic intervention centered on *Shodhana* (bio-purification), deploying in-patient *Panchakarma* treatment aimed at *Virechana* (Therapeutic purgation).^[3] This procedure facilitated elimination of morbid

Doshas (bio-humors), which may contribute to modulation of systemic inflammation and influence the hypothalamic–pituitary–thyroid axis.^[4] Following this purification phase, the patient transitioned to *Shamana* (palliative) pharmacotherapy, which resulted in marked clinical stabilization and physiological recalibration.

KEYWORDS: Hyperthyroidism, *Virechana*, Graves' disease, *Bhasmaka Roga*, *Panchakarma*.

INTRODUCTION

Hyperthyroidism is a common hypermetabolic endocrine disorder characterized by the excessive production of triiodothyronine and thyroxine, triggering accelerated systemic metabolism and autonomic hyperactivity.^[5] Ayurveda correlates this extreme physiological acceleration with *Bhasmaka Roga*,^[6] a pathological state where aggravated *Pitta* and *Vata* increase *jatharagni* and *dhatwagni*, leading to tissue depletion and causing profound *karshayata* (emaciation).^[7] While conventional interventions rely heavily on suppressive pharmacotherapy or surgical ablation, traditional bio-purificatory modalities offer a complementary therapeutic approach. By deploying *Virechana*, it systematically expels visceral inflammatory mediators, recalibrates gastrointestinal immune responses, and alleviate oxidative stress driving thyroid hyper-stimulation, thereby contributing to metabolic stability for long-term hormonal homeostasis.^[8]

CASE REPORT

Patient Information

A 27-year-old male presented on 2 August 2025 with a three-year history of progressive symptoms suggestive of severe thyrotoxicosis. The patient reported an unexplained weight loss of approximately 15 kg over three years. The weight loss was accompanied by prominent ocular protrusion involving both eyes and persistent fine tremors in both hands. Despite significant physical emaciation, the patient reported a moderate appetite, although his eating pattern was irregular. Sleep was severely disturbed, characterized by poor quality and frequent interruptions. The patient also had a known medical history of thyroid dysfunction and presented in a clinically aggravated state consistent with Graves' disease.

Table 1: Clinical Presentation and Patient Demographics.

Clinical Feature	Patient Observation	Ayurvedic Correlation
Sudden Weight Loss	15 kg in 3 months	<i>Ati Karshya / Dhatu Kshaya</i>
Exophthalmos	Bilateral protrusion	
Hand Tremors	Fine tremors of extremities	<i>Vepathu (Vata prakopa)</i>
Palpitations	Increased heart rate	<i>Hridrava (Pitta in Hridaya)</i>
Heat Intolerance	Excessive sweating	<i>Ushmadhikya / Pitta dominance</i>
Sleep Disturbance	Interrupted sleep	<i>Anidra (Vata and Pitta aggravation)</i>
Appetite	Paradoxically increased	<i>Atyagni / Bhasmaka</i>

Clinical Findings

On admission, a comprehensive physical and systemic examination was performed. The patient's blood pressure was recorded as 130/80 mmHg. However, a significantly elevated resting pulse rate of 110 beats per minute was observed, reflecting sympathetic overactivity, typically seen in severe thyrotoxicosis.

Clinical examination revealed bilateral exophthalmos, visible weight loss, and fine tremors of both hands. These findings are consistent with classical manifestations of Graves' disease. From an Ayurvedic viewpoint, the symptoms were suggestive of systemic disturbance of *Agni* with predominance of *Pitta* and associated aggravation of *Vata*, leading to accelerated metabolic activity and depletion of body tissues.

Table 2: Diagnostic Laboratory Parameters and Clinical Significance.

Parameter	Observed Value	Clinical Significance
Free T3	637 pg/dl	Severely elevated; indicates profound thyrotoxicosis.
Free T4	19.9 ng/dl	Markedly elevated; confirms hyper-functioning of the gland.
TSH	<0.005 μ IU/ml	Suppressed; demonstrates negative feedback loop shutdown.
Hemoglobin	14.0 gm/dl	Within normal limits.
Total WBC	5,100 Cells/cmm	Within normal limits.
ESR	04 mm/hr	Low; normal inflammatory marker (non-acute).
Platelet Count	3.31 Lakhs/cmm	Within normal limits.
Fasting Blood Sugar	100.8 mg/dl	Normal glycemic control.
Serum Creatinine	0.7 mg/dl	Normal renal function.

Diagnostic Assessment

To assess the extent of endocrine dysfunction, comprehensive serological and biochemical investigations were performed. The results demonstrated significant thyroid hormone imbalance consistent with hyperthyroidism. Electrocardiography revealed normal cardiac rhythm and conduction, thereby ruling out acute thyrotoxic arrhythmias such as atrial fibrillation at the time of admission.

Based on clinical history, physical findings, anthropometric evaluation, and laboratory parameters, a diagnosis of Graves' disease was established. In Ayurvedic terms, the condition could be interpreted as a systemic disorder dominated by aggravated *Pitta* with involvement of *Vata*, resulting in metabolic acceleration and progressive tissue depletion (*dhatu kshaya*).

Table 3: Samprapti Ghataka (Pathogenetic Factors).^[9]

Component	Description
<i>Dosha</i>	<i>Vata-Pitta Pradhana</i>
<i>Dushya</i>	<i>Rasa, Rakta, Mamsa, Meda, Majja</i>
<i>Agni</i>	<i>Tikshnagni / Atyagni</i>
<i>Srotas</i>	<i>Rasavaha, Raktavaha, Mamsavaha, Medovaha, Majjavaha</i>
<i>Srotodushti</i>	<i>Vimarga Gamana (overflow) and Sanga (obstruction)</i>
<i>Udbhava Sthana</i>	<i>Amashaya (Stomach)</i>
<i>Vyakta Sthana</i>	<i>Sarva Shareera (Entire body), Kantha (Throat), Netra (Eyes)</i>

Table 4: Aṣṭavidha Parīkṣā in Hyperthyroidism.^[10]

Parameter	Clinical Findings	Ayurvedic Interpretation
<i>Nadi</i> (Pulse)	Rapid, bounding, and irregular	<i>Tikṣṇa</i> and <i>Chala Nadi</i> indicating <i>Pitta-Vāta Doṣa Prakopa</i>
<i>Mutra</i> (Urine)	No major abnormalities; specific gravity ~1.030	Suggestive of mild dehydration and increased metabolism; subtle <i>Pitta</i> influence
<i>Mala</i> (Stool)	Irregular bowel habits; alternating frequency	<i>Vāta-Pitta Duṣṭi</i> in <i>Pakvāśaya</i> leading to altered bowel patterns
<i>Jihwa</i> (Tongue)	Mild coating present	<i>Alpalipta Jihwa</i> indicating <i>Sāma Avasthā</i> and mild <i>Agnimāndya</i>
<i>Shabda</i> (Speech)	Normal but anxious tone	Reflects <i>Vāta Prakopa</i> affecting mental and nervous functions
<i>Sparsha</i> (Touch)	Warm, moist skin	<i>Uṣṇa</i> and <i>Snigdha Sparśa</i> indicating <i>Pitta Vriddhi</i> and <i>Swedādhikya</i>
<i>Drik</i> (Eyes)	Protrusion, congestion	Classical sign of <i>Netra Vikāra</i> associated with <i>Pitta-Vāta Dushti</i> (Graves' ophthalmopathy)
<i>Akruti</i> (Built)	Emaciated physique	<i>Kṛśa Śarīra</i> due to <i>Dhātu Kṣaya</i> and increased <i>Dhatvagni</i> .

Therapeutic Intervention Protocol

The severity of the patient's hypermetabolic state necessitated the implementation of a carefully designed and sequential *Śodhana*-based therapeutic protocol.^[11] The treatment strategy was formulated to stabilize digestive and metabolic functions, mobilize metabolic by-products from peripheral tissues, and eliminate them through the gastrointestinal tract without inducing systemic instability. The intervention was implemented in five sequential phases: *Dīpana–Pācana* (metabolic priming), *Snehapāna*^[12] (internal oleation), *Svedana*^[13] (sudation and mobilization), and *Virechana*^[14] (therapeutic purgation), followed by *Saṃsarjana Krama* (gradual dietary transition).

Timeline of Treatment

Table 5: Chronological Timeline of Therapeutic Intervention.

Phase	Duration	Intervention	Details of Administration	Ayurvedic Rationale	Clinical Outcome
Phase 1: Metabolic Priming	Days 1–3	<i>Hingvāṣṭaka Cūrṇa</i>	1 teaspoon twice daily before meals	<i>Āma Pachana</i> and <i>Agni dīpana</i> ; regulates <i>Vāta</i> in <i>Koṣṭha</i>	Improved digestion and bowel regularity
		<i>Harītakī</i> tablets	2 tablets at bedtime	<i>Vatanulomana</i> (facilitating proper elimination)	Enhanced bowel clearance
		<i>Sarvāṅga Udvartana</i>	Daily dry powder massage	Reduces <i>Kapha</i> and <i>medas</i> and mobilizes toxins	Induced <i>Śarīra Laghutā</i>
		<i>Pariṣeka</i>	Daily medicated liquid pouring	Improves circulation and detox pathways	Induced <i>Śarīra Laghutā</i> & Sense of well-being
		<i>Pathyāhāra (Lāja Maṇḍa, Ganji)</i>	Light, digestible diet	Supports <i>Agni</i> without burden	Digestive stabilization
Phase 2: Internal Oleation (Snehapāna)	Days 4–6	<i>Mahātikṭaka Ghṛta</i>	Escalating doses as per <i>Agni</i> and <i>Koṣṭha</i> (digestive capacity): 30 ml, 60 ml, 90 ml, and 120 ml.	Mobilizes toxins from <i>Dhātus</i> to <i>Koṣṭha</i> ; pacifies <i>Pitta–Kapha</i>	<i>Samyak Snigdha Lakṣaṇa</i> observed (Proper oleation achieved); readiness for <i>Śodhana</i>
Phase 3: External Sudation &	Days 7–8	<i>Sarvāṅga Abhyanga</i> with <i>Kṣīrabala Taila</i>	Full body oil massage	Nourishes tissues, facilitates toxin movement	Improved systemic relaxation

Mobilization					
		<i>Bāspa Sveda</i>	Steam sudation post massage	Induces vasodilation; liquefies <i>Doshas</i> (toxins)	Enhanced toxin mobilization
		<i>Lepa</i> (local application)	Applied over <i>Kantha</i> (thyroid region) using <i>Vacha</i> , <i>Triphala</i> , <i>Haritakī</i> , <i>Gomūtra</i>	Reduces glandular inflammation; stimulates lymphatic drainage	Reduction in local symptoms; improved comfort
Phase 4: Expulsion Phase (<i>Virechana</i>)	Day 9	<i>Sarvāṅga Abhyanga & Sveda</i> (pre-procedure)	Conducted prior to <i>Virechana</i> (Therapeutic purgation)	Final mobilization of toxins from <i>Shaka</i> to <i>Koṣṭha</i> .	Prepared for elimination
		<i>Trivṛt Avaleha</i> with <i>Triphala Kaṣāya</i> (<i>Anupāna</i>)	65 g Avaleha with 100 ml decoction at 8:30 AM	<i>Adhobhāgahara</i> action inducing <i>Virechana</i> (Therapeutic purgation); eliminates <i>Pitta Doṣa</i>	7 Vegas achieved; <i>Avara Śuddhi</i> attained; patient stable.
Post-Purification Care	Day 10	<i>Samsarjana Krama</i>	Gradual dietary transition	Restores digestive strength (<i>Agni</i>) post <i>Śodhana</i>	Safe recovery of GI function
Discharge & Śamana Cikitsā	15 days	<i>Śamana Cikitsā</i> 1. <i>Kañcanāra Kaṣāya</i> + <i>Punarnavādi Kaṣāya</i> 2. <i>Kañcanāra Guggulu</i> 3. <i>Ksheerapaka</i> with <i>Ashwagandha</i> + <i>Shatavari</i> + <i>Bala</i> + <i>Guduchi</i> 5. <i>Lepa</i> (local) <i>Vacha</i> , <i>Triphala</i> , <i>Haritaki</i> , and <i>Gomutra</i>	Supportive internal medications 15 ml each TID before food 2 tablets each TID 50 ml BD BF Alternate days	Controls residual <i>Doṣa</i> and promotes <i>Dhātu Poshana</i> <i>Kapha–Pitta Śamana</i> ; <i>Śothahara Lekhana</i> , <i>Granthi-hara</i> <i>Rasāyana</i> , <i>Pitta Śamana</i> Local anti-inflammatory	Stabilization and tissue rejuvenation Reduction in glandular swelling Reduction in nodular growth Tissue nourishment Sustained improvement

Table 6: Changes in Clinical Features According to Ayurvedic Assessment.

Symptoms	Before Treatment	After Treatment
<i>Daurbalya</i> (debility)	++	+
<i>Śvāsa</i> (breathlessness)	+++	-
<i>Trṣṇā</i> (thirst)	+++	-
<i>Dāha</i> (burning sensation)	++	-
<i>Mūrchā</i> (fainting)	-	-

Table 7: Changes in Subjective Parameters.

Symptoms	Before Treatment	After Treatment
Exertional dyspnea	+++	++
Sweating	+++	-
Irritability	++++	+
Loss of weight	++++	+
Increased appetite	++	-

Table 8: Changes in Objective Parameters (Thyroid Function Tests).

Parameter	Before Treatment (29/7/2025)	After Treatment (30/08/25)
Free T3 (pg/mL)	637 pg/mL	6.05 pg/mL
Free T4 (ng/dL)	19.9 ng/dL	14.2 ng/dL
TSH (μ IU/mL)	<0.005 μ IU/mL	<0.001 μ IU/mL

DISCUSSION

Gut–Thyroid Axis and Ayurvedic Correlation

Emerging evidence suggests an interaction between gut microbiota, immune mechanisms, and thyroid function.^[15] Increased intestinal permeability and dysbiosis contribute to chronic inflammation and autoimmune activation.^[16] This is comparable to the Ayurvedic concept of impaired *Jatharāgni* leading to *Āma* formation, which acts as the root cause of systemic diseases. In this case, the pathogenesis can be understood as *Pitta–Vāta Prakopa* with *Kapha Kṣaya*, resulting in excessive metabolic activity. The condition corresponds to *Dhatvāgni Vṛddhi*, where accelerated tissue metabolism leads to depletion of structural components (*Dhātu Kṣaya*).

Pathophysiology of *Bhasmaka Roga*

The disease process involves depletion of *Kapha*, which normally regulates metabolic intensity. Its loss leads to increased *Pitta* activity, further aggravated by *Vāta*, leading to excessive stimulation of *Agni*.^[17] This results in accelerated metabolic turnover leading to progressive tissue depletion, manifesting clinically as weight loss, tachycardia, and hyperactivity. Thus, the Ayurvedic approach focuses not on suppressing the thyroid gland but on restoring systemic metabolic balance.

Therapeutic Role of *Snehapāna* and *Svedana*

Snehapāna with *Mahatiktaka Ghṛta* facilitates mobilization of *Doshas* due to its lipid-soluble nature. The predominance of *Tikta Rasa* contributes to *Pitta–Kapha Śamana* and detoxification. *Svedana* enhances peripheral circulation and promotes the movement of

liquefied toxins toward the gastrointestinal tract, preparing the body for *Shodhana* (elimination).

Impact of Virechana Karma (Therapeutic purgation) in Hyperthyroidism

Virechana Karma, a principal *Shodhana* therapy indicated for *Pitta Dosha* vitiation, may play a role in conditions characterized by hypermetabolism. By facilitating the elimination of vitiated *Pitta* through the gastrointestinal tract, it may help in correcting *Tikshnagni* and restoring metabolic homeostasis.^[18] Beyond its local cleansing action, Virechana may contribute to systemic regulation by reducing inflammatory mediators, modulating autonomic nervous system activity, and thereby influencing the gut–brain–endocrine axis. This integrative effect can contribute to the regulation of neuroendocrine functions^[19] and attenuation of hypermetabolic symptoms like tachycardia, heat intolerance, and irritability. Thus, Virechana Karma may provide a holistic approach in managing hyperthyroidism by addressing both *Dosha* imbalance and systemic dysregulation.

The observed reduction in symptoms such as tachycardia and anxiety may suggest a shift from sympathetic overactivity toward parasympathetic dominance. The post-*Śodhana*, *Śamana* regimen demonstrates a multi-targeted therapeutic approach in the management of hyperthyroidism. *Kañchanāra Guggulu* is believed to act on glandular pathology (*Granthi*) and supports metabolic normalization, while *Punarnavādi Kaṣāya* effectively reduces inflammation and fluid accumulation (*Śoṭha*). *Godantī Bhasma*, owing to its *Śīta Vīrya*, provides systemic cooling and helps counteract the excessive metabolic heat. *Aśvagandhā* contributes adaptogenic support, promoting neuroendocrine stability, whereas the combination of *Balā* and *Guḍūcī* facilitates tissue nourishment (*Bṛmhaṇa*) and enhances immune resilience (*Rasāyana*), thereby aiding in overall systemic recovery and prevention of relapse. This integrative regimen ensures sustained recovery and systemic equilibrium.

Table 6: Pharmacological and Ayurvedic Correlation of Post-*Śodhana*, *Śamana* regimen Interventions in the Management of Hyperthyroidism.^[20 21 22 23]

Pharmacological intervention	Ayurvedic properties (rasa, guna, virya)	Primary mechanism of action in hyperthyroidism
<i>Kanchanara guggulu</i>	<i>Kañcanāra</i> , <i>triphalā</i> , <i>trikaṭu</i> , <i>guggulu</i> <i>Kashaya</i> (astringent), <i>ruksha</i> (dry), <i>lekhana</i>	<i>Granthi-hara</i> , <i>śoṭahara</i> , <i>lekhana</i> Clears lymphatic congestion; antiproliferative; reduces goiter hypertrophy.
<i>Punarnavadi kashaya</i>	<i>Nimba</i> , <i>paṭola</i> , <i>kaṭuki</i> , <i>triphalā</i> , <i>ghṛta</i>	<i>Pitta śamana</i> , <i>rakta prasādana</i> , <i>bṛmhaṇa</i>

	<i>Madhura</i> (sweet), <i>mutrala</i> (diuretic)	Rapid diuresis; eliminates localized edema; reduces proptosis and Intra ocular pressure (IOP).
<i>Godanti bhasma</i>	Purified gypsum <i>Sheeta virya</i> (cold potency), <i>pitta shamaka</i>	<i>Dāha-hara</i> , <i>hṛd-drava-hara</i> , <i>balya</i> Neutralizes thyrotoxic heat (<i>daha</i>); provides bioavailable calcium to halt osteopenia.
<i>Ashwagandha</i> (with caution)	<i>Madhura–Tikta Rasa</i> ; <i>Laghu–Snigdha Guna</i> ; <i>Ushna Virya</i> ; <i>Madhura Vipaka</i> ; <i>Balya</i> , <i>Brimhana</i> , <i>Rasayana</i> , <i>Adaptogenic</i> (HPA axis modulation).	<i>Śothahara</i> , <i>mutrala</i> , <i>srotoshodhana</i> Modulates hpa axis; may contribute to modulation of the stress response and reduce tremors; rebuilds muscle mass.
<i>Bala & guduchi</i>	<i>Brimhana</i> , <i>rasayana</i> , immunomodulator	Restores <i>ojas</i> and self-tolerance; reverses <i>dhatu kshaya</i> (emaciation).
<i>Lepa</i> (<i>vacha</i> , <i>triphala</i> , <i>gomutra</i>)	<i>Ushna</i> (hot), <i>tikshna</i> (sharp), <i>sroto-shodhaka</i>	Enhances transdermal absorption; reduces local inflammation; aids in goiter regression.

CONCLUSION

The management of this 27-year-old male with Graves' disease suggests the clinical relevance of *Śodhana* interventions in addressing complex autoimmune endocrine disorders. By identifying the condition as a state of *Vata-Pitta* hypermetabolism (*Bhasmaka Roga*) and *Tikshnagni*, the clinical team successfully utilized *Virechana* with *Mahatiktaka Ghrita* helped restore metabolic balance. The rapid weight stabilization, reduction in tremors, and regression of ocular signs suggest that Ayurvedic interventions can provide symptomatic relief and possible metabolic improvement, and facilitate metabolic improvement. The suppression of TSH and elevation of T3/T4 were countered by a strategy that prioritized *Pitta Shamana*, *Vata Anulomana*, and *Dhatu Brimhana*.

This case suggests potential therapeutic benefit of *Panchakarma* in hypermetabolic states. The gut-thyroid axis, long recognized in Ayurveda through the concept of *Agni*, remains a potent pathway for the treatment of modern endocrine pathologies. Further controlled studies are essential to formalize these Ayurvedic protocols, offering a safe, effective, and holistic alternative for the growing global population suffering from Graves' disease and related hyperthyroid disorders. Integration of Ayurvedic and modern approaches, along with contemporary biochemical monitoring, represents the future of integrative endocrinology²⁴, supporting restoration of physiological balance.

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