



REVIVING THYROID HEALTH: AN AYURVEDIC IMMUNOMODULATORY PROTOCOL FOR HASHIMOTO'S THYROIDITIS WITH PRIMARY HYPOTHYROIDISM – A CASE REPORT

Ayurveda

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ABSTRACT

Background: Hashimoto's thyroiditis is the most common cause of primary hypothyroidism, characterized by autoimmune-mediated destruction of the thyroid gland. From an Ayurvedic perspective, it can be understood as *hatvagnimandya* with *kapha-vata vriddhi*, *pitta kshaya*, and *kaphaja galaganda* involving *ama* and *agni mandya* at *koshta*, *rasa*, *mamsa*, *medas*, and *asthi* levels. **Case Presentation:** A 54-year-old female presented with lethargy, reduced appetite, hair fall, and a foreign body sensation in the throat with mild dysphagia. Laboratory findings showed elevated TSH (13.42 mIU/mL), reduced free T4, and high anti-TPO and anti-thyroglobulin antibodies. Neck ultrasonography revealed a 10×10 mm thyroid nodule. Based on clinical and biochemical features, the case was diagnosed as Hashimoto's thyroiditis with primary hypothyroidism. **Management:** Ayurvedic treatment focused on *ama pachana* and *agni deepana* along with *shotha* and *galaganda chikitsa*. The patient was prescribed *Punarnavadi Kashayam*, *Guluchyadi Kashayam*, *Kanchanara Guggulu*, and *Chitrakadi Vati* for 60 days. **Outcome:** At follow-up, the patient reported marked reduction in lethargy, hair fall, and throat discomfort, with improved appetite. TSH reduced to 7.64 mIU/mL, free T4 normalized, and ultrasonography showed reduction of the thyroid nodule to 8×5 mm. **Conclusion:** This case demonstrates the potential of integrative Ayurvedic management in Hashimoto's thyroiditis. Targeting *ama* and *agni mandya* with specific *chikitsa* principles led to significant clinical, biochemical, and radiological improvement. Ayurveda may provide supportive and complementary benefits in autoimmune thyroid disorders.

KEYWORDS

Hashimoto's Thyroiditis; Primary Hypothyroidism; Autoimmune Thyroiditis; Ama Pachana; Agni Deepana; Galaganda Chikitsa

INTRODUCTION

Hypothyroidism can be defined as a decrease in thyroid hormone production and/or by an impaired action of thyroid hormones on target tissues. It is a multisystemic disorder with various etiologies. Hypothyroidism can be classified in to two main types: primary and central. Primary hypothyroidism is caused by the disorder of the thyroid gland which contributes to decreased thyroid hormone secretion. Central hypothyroidism is associated with decreased release of TSH from the pituitary gland (secondary) or with reduced secretion of TRH from the hypothalamus (tertiary hypothyroidism). In the case of central hypothyroidism decreased thyroid hormone secretion is caused due to the decreased stimulation of thyroid gland.

Etiology & Clinical Presentation:

Etiology

- Autoimmune basis: Hashimoto's thyroiditis is an organ-specific autoimmune disease.
- Genetic predisposition: Strong association with HLA-DR3, HLA-DR4, HLA-DR5 and polymorphisms in CTLA-4 and PTPN22 genes.
- Environmental triggers: Excess iodine intake, Certain drugs (e.g., amiodarone, interferon- α , lithium) Infections (possible molecular mimicry), Stress and female hormonal influences (9:1 female: male ratio).

Pathogenesis

- Breakdown of self-tolerance \rightarrow immune system attacks thyroid antigens (thyroglobulin, thyroid peroxidase [TPO]).
- Cellular immune mechanisms:
 - o CD4+ T helper cells activate cytotoxic CD8+ T cells \rightarrow direct follicular cell injury.
 - o B cell activation \rightarrow production of antithyroid antibodies (anti-TPO, anti-thyroglobulin, sometimes TSH receptor blocking antibodies).

Clinical Presentation

Symptoms

Fatigue, lethargy Weight gain despite poor appetite, Cold intolerance, Constipation Dry, coarse skin, hair loss, Hoarseness of voice, Menstrual irregularities, infertility Depression, Cognitive slowing.

Signs

Diffusely enlarged, firm, rubbery, and painless goiter (often symmetric, but sometimes nodular) Bradycardia, delayed reflex relaxation, periorbital puffiness, macroglossia, myxedema. dysphagia, dyspnea in very large goiters.¹

Management:

Medical Management

Euthyroid with Small Goiter - No treatment, just observation. Check TSH every 6–12 months.

Subclinical hypothyroidism (\uparrow TSH, normal T4)

Treat if:

- TSH >10 mIU/L
- TSH 5–10 mIU/L with symptoms, pregnancy, infertility, or goiter.

Overt hypothyroidism (\uparrow TSH, \downarrow T4)

Levothyroxine (L-T4) replacement

- Usual dose: 1.6 μ g/kg/day (adjust based on age, comorbidities).
- Start low (25–50 μ g/day) in elderly or cardiac disease, titrate slowly.
- Monitor TSH every 6–8 weeks until stable, then yearly.

Surgical Management

- Rarely needed. Consider thyroidectomy if:
 - o Very large goiter causing compressive symptoms
 - o Suspicion of malignancy
 - o Cosmetic concern unresponsive to medical therapy²

Case Details

A 54 year old lady who is not a K/C/O Diabetes Mellitus, Hypertension and Hypothyroidism presents with the c/o lethargy, reduced appetite, hairfall, foreign body sensation in the throat with mild difficulty in deglutition since 3 years. She was apparently normal before 3 years after which she started experiencing lack of enthusiasm in doing her routine day to day activities. She felt a slowness in doing her household works. She also started noticing a sudden increase in hairfall. Since 1 year she she is complaining about an obstruction in the throat especially while swallowing solid foods associated with itching. She also had a long history of gastritis prior to the onset of these complaints.

The family history of hypothyroidism was negative. After analysing her clinical presentation, she was advised to go for thyroid function test on 16/06/2025. The TSH level was found to be 13.420 μ IU/mL, Total T3 – 104.3 ng/ml, Total T4 – 6.2 mg/dl, FT3 – 3.25 pg/ml, Free T4 – 0.87 ng/dL. The Anti TPO Antibody was found to be 142.1 IU/mL and Anti thyroglobulin antibody 633.6 IU/mL. The USG of neck was done on 22.06.25 showing a nodule of size 10*10 mm in the left lobe of thyroid.

Bases on her clinical presentation and biochemical analysis, the case was diagnosed as Hashimoto's thyroiditis causing Primary Hypothyroidism. Since there is no specific correlation for Hashimoto's

Thyroiditis in Ayurveda, the case was understood in Ayurveda based on the dosha dushya analysis. There is an invariable role for koshtagata ama and agni mandya in her history as she was having reduced appetite with a chronic history of gastritis. The formation of koshta gata ama has resulted in ama formation and agni mandyam at dhatu level such as Rasa, Mamsa and Medas. Lethargy and hairfall reflected the presence of ama and agni mandya at rasa and asthi level. Foreign body sensation in throat is attributed as a mamsa pradoshaja vikara i.e galaganda. It is caused due to agni mandya and ama formation at mamsa level. The slowness in her activities is due to the ama formation at medas level. Hence there is involvement of koshta, rasa mamsa medas and asthi in the present case. On analysing the symptoms, the dosha pradhanyata was understood as kapha vata vrudhhi with pitta kshaya. The case was diagnosed in Ayurveda as “Dhatwagnimandyam” at the level of Rasa, Mamsa, Medas and Asthi along with Kaphaja Galaganda.

Initially shamana chikitsa was advised after analysing the dosha-dushyas along with sthana and lakshanas.

The oral medicines advised in the current case include:

- Punarnavadi Kashayam & Guluchyadi Kashayam – each 10 ml with 60 ml boiled and cooled water morning and night before food
- Kanchanara Guggulu – 1 tablet morning and night after food
- Chitrakadi Vati – 2 tablet morning and night before food

The review was advised after 60 days of medication. In the follow up remarkable improvements were noted in the clinical and biochemical parameters. The lethargy, hair fall and obstruction in throat along with itching has reduced considerably and the appetite also got improved with absence of any gastric discomforts. The TSH level reduced from 13.420 μ IU/mL to 7.64 μ IU/mL and free T4 became normal – 0.68 ng/dl. The USG of thyroid was repeated on 24.08.25 and the size of the nodule was reduced from 10*10 mm to 8*5 mm.

DISCUSSION

The present case was approached with treatment principles such as Ama pachana and Agni Deepana at koshta and dhatu level. Shotha chikitsa and Galaganda chikitsa were also specifically incorporated considering the nodular thyroiditis. Guluchyadi kashayam was administered with aim of tikta pachana and deepana at koshta level.³ As she had a long history of gastritis, the samprapthi was logically assumed to be initiated from koshta. Moreover the pathogenesis of Autoimmune hypothyroidism also starts from the gut with the “leaky gut syndrome” resulting in the entry of autoantigens into the blood stream. Guluchyadi kashayam helps in improving her gut function with a resultant improvement in appetite and reduction in gastritis thereby preventing the further entry of autoantigens. Punarnavadi Kashayam was judiciously selected after analysing her clinical presentation and UGG report. Since there was a nodule in the left lobe, shotha chikitsa was incorporated. Punarnavadi kashayam being a tikta rasa pradhana kashaya helped in kapha pitta harana at shaaka level i.e Rasa, Mamsa. It helped in reducing the lymphocyte mediated inflammation at thyroid level as it is indicated in kapha pitta pradhana shopha.⁴ Both the kashayas contain Guduchi as a common ingredient. Guduchi also helps in immunomodulation in the current case as its due to autoimmunity. Kanchanara guggulu is specifically indicated in galaganda. It also helped in reducing the size of the nodule there by relieving the discomfort in the throat. Chitrakadi Vati told in Grahani chikitsa contains pancha lavana and deepaniya dravyas like Ajamoda Chavya Chitraka etc which helped in reducing the kapha and correcting the function of agni at koshta rasa and mamsa. It also contains dvi ksharas which helped in reducing the size of the nodule due to its ksharana swabhava.⁵ Hence the overall treatment protocol is mainly focussed on removing the ama at koshta and dhatu along with correction of agni.

CONCLUSION

Hypothyroidism being a hypometabolic clinical state can be understood as manda avastha of Agni at Koshta and Dhatu levels. The involvement of dhatus varies from patient to patient depending upon the presentation and chronicity. Hypometabolism is due to the hypo functioning of the agni. Hence the treatment in hypothyroidism should be primarily focused on ama pachanam and agni deepanam. In case of hypothyroidism with lymphocytic thyroiditis such as Hashimoto’s thyroiditis, both shotha as well as galaganda chikitsa can also be incorporated to yield better results in clinical, biochemical and radiological parameters.



PatientName : Mrs.SARETA GUPTA		Collected : 24/Aug/2025 01:50PM
Age/Gender : 55 Y/F	Barcode No : 10006483	Received : 24/Aug/2025 01:51PM
Visit ID : PPL3672	Ref. By : SELF	Reported : 24/Aug/2025 03:15PM
Client Code : 111	UHID : PPL000003673	Status : Final Report
		Panel Name : HEALTH HEALTH CARE
		Customer Ref : SELF

DEPARTMENT OF HORMONE ASSAYS			
FT4 TSH - ULTRASENSITIVE			
FT4	0.68	ng/dl	0.50-1.32
Ultrasensitive TSH	7.64	uIU/ml	0.50-4.76
U3A			

Comments:
The levels of Thyroid hormones (T3, T4 & FT3, FT4) are low in case of Primary , Secondary and Tertiary Hypothyroidism and sometimes in nonthyroidal illness also. Increase levels are found in Graves disease, Hypothyroidism and Thyroid hormone resistance.
TSH levels are raised in Primary Hypothyroidism and are low in Hypothyroidism and secondary Hypothyroidism.

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