

**ASSESSMENT OF RASA, RAKTA, MAMSA AND MEDO DHATU LEVEL IN HYPOTHYROIDISM****Renu Rawat<sup>1</sup>, Rimpay Saini<sup>2</sup>, Ruby Rani Agarwal<sup>3</sup>, Shashi Kant Tiwari<sup>4</sup>**<sup>1</sup>P.G Scholar ,Dept. of Roga Nidan evum vikriti Vigyan, Rishikul campus, Haridwar<sup>2</sup> P.G Scholar ,Dept. of Roga Nidan evum vikriti Vigyan, Rishikul campus, Haridwar<sup>3</sup> Professor and H.O.D, Dept. of Roga Nidan evum vikriti Vigyan, Rishikul campus, Haridwar<sup>4</sup>Asst. Prof Dept of Rog Nidan Evum Vikriti Vigyan, Rishikul campus, Haridwar**Corresponding Author:** [renurawat303@gmail.com](mailto:renurawat303@gmail.com)<https://doi.org/10.46607/iamj1713022025>**(Published Online: February 2025)****Open Access**

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Ayurveda, an age-old Indian medical system, is well-known for its natural remedies and comprehensive approach to wellness. Thyroid hormones are an essential part of the human endocrine system and play a significant role in the metabolism, growth and development of tissues. Thyrotropin-releasing hormone (TRH) produced by the hypothalamus acts on the pituitary to stimulate the synthesis and release of TSH. TSH stimulates the thyroid to secrete mainly T<sub>4</sub> and T<sub>3</sub>. An increase in the level of thyroid hormones inhibits the release of TRH from the hypothalamus and TSH from the pituitary, while a fall in the level of thyroid hormones leads to an increase in the level of TRH and TSH.

As per *Ayurvedic doctrine*, health and disease assessment are determined by the status of Agni, Dosha, Dhatu, Mala, and Srotas in the body. Metabolic activities are linked to the development and function of *Dhatu*s, and it has been observed that hypothyroidism impairs this metabolism. Agni is fundamental to health and disease and is crucial to metabolism. Therefore, assessment of the *Dhatu and agni* is a key factor in determining the severity of hypothyroidism. The relationship between *Dhatu Kshaya Vridhi* and hypothyroidism can help in providing a new line of *Ayurvedic* treatment.

**Keywords:** Kayagni, Dhatwagni, Dhatuvridhi, Dhatukshaya

## INTRODUCTION

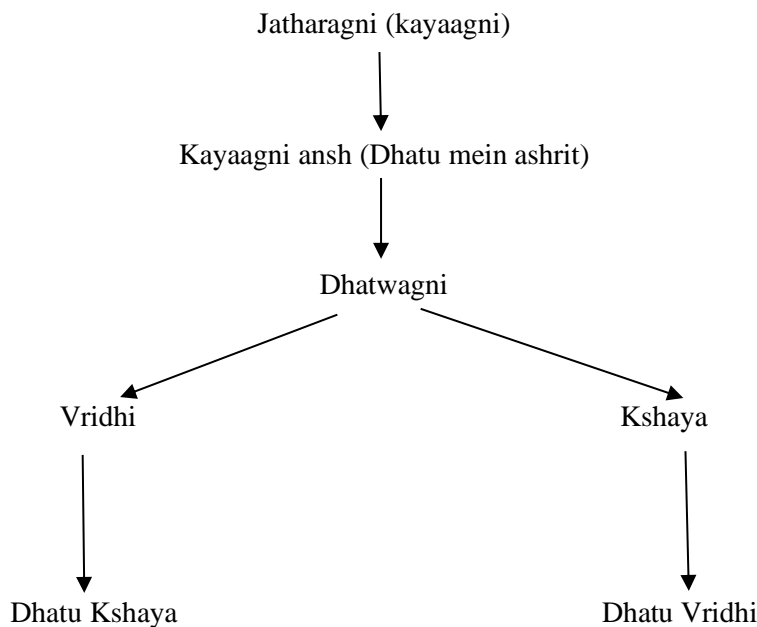
Technology has completely changed people's eating habits and lifestyles in the modern era. Most of metabolic disease have been evolved due to changing lifestyle and dietary habits and stress. Hypothyroidism is a clinical condition resulting in decreased production of triiodothyronine (T3) and thyroxine (T4) from the thyroid gland. Hypothyroidism is a prevalent condition, with a reported incidence of 3.5% to 4.2%. Based on various research on thyroid disease, 42 million individuals in India are estimated to have a thyroid condition, with subclinical hypothyroidism being the most common type, with a prevalence of 9.4%. Worldwide, 2 billion individuals lack enough iodine; according to the W.H.O., the Prevalence of hypothyroidism in the developed world is about 4-5 %. India has a high prevalence of hypothyroidism, which is about 10.9%. Management of hypothyroidism with modern drugs may bring the value of TSH, T4 and T3 to normal range, but the increased dosage and continuous medication throughout life are expensive and make patient drug dependent till the end of mortal life. TSH has a negative feedback relationship with thyroid hormones: an increase in TSH leads to a decrease in

thyroid hormones, while a decrease in TSH results in an increase in thyroid hormones. Similarly, *Dhatwagni* functions: a decrease in *Dhatwagni* leads to an increase in *Dhatu* formation, whereas an increase in *Dhatwagni* results in a decrease in *Dhatu* formation.

### Ayurvedic Literature

Based on *Ayurvedic* principles, the primary cause of this disease is the dysfunction of *Agni*. The pathogenic sequence is eventually brought out by the hypofunction of *Jatharagni*, which in turn affects *Dhatwagni* and finally leads to the development of the disease condition.

According to *Ashtanga Hridaya* chapter 11/34, *Dhatu Vridhi Kshaya* was caused by *Kshaya Vridhi* of "*Ansh of Kayagni*" present in *Dhatu*. The hypofunctioning of "*Ansh of Kayagni*" in turn affects *Dhatwagni* and eventually brings out the pathological sequence, and ultimately, the disease condition develops. Every *Dhatu* has a unique *Agni* in charge of its metabolism and the creation of the next *Dhatu*; when these *Agnis* are weak, they interfere with the development and operation of the following *Dhatu*.



According to Ayurveda, the body is said to be composed of seven *Dhatu*s that have particular functions

and are accountable for the body's constitution: *Rasa Dhatu* (primary product of digested food), continuing

with *Rakta* (blood tissue), *Mamsa* (muscle tissue), *Meda* (fat tissue), *Asthi* (bone tissue), *Majja* (bone marrow), and ending with *Sukra Dhatu* (reproductive fluids). Each *Dhatu* feeds the one above it, and they serve as the foundation for each.

*Acharya Sushruta* has explained the meaning of the word *Dhatu* as '*Dhaaranat Dhaatvah*', i.e., the element that sustains the body is called *Dhatu*. *Ashtanga Samgrahakar* has mentioned that *Dhatu* sustains the body, and one *Dhatu* always nourishes the other.

The primary responsibilities of *Dhatu* are *Poshana* and *Sharira Dharana*.

*Dhatu-Kshaya* describes the wasting away or disappearance of bodily tissues. *Dhatu vridhhi* refers to excessive *Dhatu* growth, which causes various challenging diseases.

Assessable *Dhatu Kshaya Vridhi Lakshan* is as follows:

<b>Dhatu</b>	<b>Kshaya</b>	<b>Vridhi</b>
<b>Rasa Dhatu</b>	Ghattate [shaking] Sahate Shabdham Na [intolerance to high-frequency sound] Hrdrava [palpitation of heart] Hridayam Tamyati Alpa Cheshtasya Api [exhaustion on little exertion] Hrdrava [precordial pain/cardiac pain]	Agnisadana [diminution of digestive power ] Praseka [excessive salivation] Alasya [lethargy] Gaurava [heaviness in body] Shvaithya [white discolouration] Shaithya [coldness] Shlathangatva [flaccidity/laxity in body parts] Shwasa [breathlessness/difficult breathing] Kasa [cough] Atinidrata [excessive sleep]
<b>Rakta Dhatu</b>	Tvak Parusha [rough skin] Sphutita Tvak [cracked skin] Mlana tvak [faded skin/lustreless skin] Tvak Rukshata [dryness of skin]	Agnisadana [diminution of digestive power ] Praseka [excessive salivation] Alasya [lethargy] Gaurava [heaviness in body] Shvaithya [white discolouration] Shaithya [coldness] Shlathangatva [flaccidity/laxity in body parts] Shwasa [breathlessness/difficult breathing] Kasa [cough] Atinidrata [excessive sleep]
<b>Mamsa Dhatu</b>	Sphik -Shushkata [wasting of hips] Greeva- Shushkata [wasting of the neck] Udara- Shushkata [wasting of abdomen]	Sphik-vridhhi [enlargement of hips] Ganda-vridhhi [enlargement of cheeks, whole side of the face including the temple] Ostha-vridhhi [enlargement of lips] Uru-vridhhi [enlargement of thighs] Bahu-vridhhi [enlargement of arms] Udara-vridhhi [enlargement of abdomen] Jhangha-vridhhi [enlargement of calf] Gurugatrata [heaviness of limbs]
<b>Medo Dhatu</b>	Glani (fatigue in mind and body) Akshno Ayasa [tired eye] Udara tanutva (Thin abdomen) Pleehaabhivridhi (spleen enlargement)	Aleppo cheshtite shwasanam (Dyspnoea with mild exertion) Udara-Lambanam [pendulous fatty Enlargement of abdomen] Sphik lambanam [pendulous fatty Enlargement of hips]

<p><i>Sandhisunyata</i> (hollowness feeling in joints)  <i>Rokshyam</i> (dryness/rough body)  <i>Medumamsaprarthana</i> (craving for fatty food)  <i>Sandhi Sphutana</i> (Crepitation of joints)</p>	<p><i>Stana-lambanam</i>[pendulous fatty Enlargement of breasts]  <i>Shwasa</i> (breathlessness)  <i>Kasa</i> (cough)  <i>Daurgandhya</i>(foul smell)</p>
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### Modern Literature

Hypothyroidism is a clinical syndrome resulting from a deficiency of Thyroid hormones, which ultimately results in a generalised slowing down of metabolic processes.

There are four types of hypothyroidism: Primary (caused by a lack of thyroid hormone), Secondary (caused by a deficiency of TSH), Tertiary (caused by a deficiency of thyrotropin-releasing hormone), and Peripheral (extra-thyroidal; panel).

Hypothyroidism can be caused by a variety of factors, including autoimmune diseases, thyroid gland removal surgeries, radiation therapy, and certain medications. The diagnosis of hypothyroidism is based on laboratory tests that measure the levels of thyroid hormones in the blood. Treatment typically involves life-long hormone replacement therapy with synthetic thyroid hormone replacement medication, such as levothyroxine, to help regulate thyroid hormone levels in the body. People with hypothyroidism need to have their medication dosage adjusted over time. If this condition is left untreated, it can lead to severe complications like delayed milestones, mental retardation, etc., in infants and heart failure, infertility, myxedema coma, etc., in adults. The majority of individuals with hypothyroidism can have normal, healthy lives if their symptoms are properly managed with the right medical care. Eating healthy food and exercising a regular part of one's lifestyle can help control symptoms and enhance one's quality of life. Functions of thyroid hormones: Bone growth: Maturation CNS,  $\beta$ -adrenergic actions, Increased BMR, Glycogenolysis, gluconeogenesis, Lipolysis Hypothyroidism symptoms include cold intolerance, hair loss, Lethargy, Dry skin, Constipation, Menstrual

disturbance, Slowing of speech, Weight gain, Intellectual function, Bradycardia, Puffiness of the face, Muscle pain, and stiffness.

### DISCUSSION

Impaired *Dhatwagni* (tissue metabolism) and *Jatharagni* (digestive fire) are common symptoms of hypothyroidism. It can result in *Rasa Kshaya*, which is characterised by sluggish metabolism and decreased tissue feeding. *Ama* (toxins) were built in the *Rakta Dhatu* due to impaired *Agni*. Tissues become heavy and lethargic and have inadequate oxygenation as a result. *Mamsa Dhatu* may experience impaired metabolism and tissue stagnation as a result. This causes sluggishness, water retention, and a heavy physique, which results in bloated and puffy muscles. Since hypothyroidism is characterised by slow metabolism and poor fat processing, *Meda Dhatu* is greatly impacted by the condition.

We now know that *Agni* is mainly responsible for hypothyroidism. As a result, the *Dhatwagni* are weakened, resulting in symptoms that are both mental and physical. All of these pathogenic elements must be addressed when treating hypothyroidism, paying particular attention to *Dosha*, body strength, and mental clarity.

Symptoms of Hypothyroidism based on *Ayurveda* can be explained as follows:

1. Cold intolerance - *Shaithya*
2. Loss of hair -*Rasa kshaya*
3. Lethargy - *Alasya*
4. Dry skin - *Rokshyam, Tvak Parusha*
5. Weight gain -*Gurugatrata*
6. Puffiness of face *Ganda-Medo Vridhi*
7. Joints pain –*Sandhi Vedana*(mamsa vedana),*Sandhi Shoonyata* (medo kshaya)

8. Disturbance in circulation responsible for bradycardia and hypertension - *Sira Shaithalya*
9. Menstrual disturbance- *Artava Dushti(Rakta Updhatu)*
10. Intellectual function- *Shoonyata*
11. Constipation – *Agni Dysfunction*

## CONCLUSION

The relationship between hypothyroidism and *Dhatu* imbalance is clear: the reduced thyroid function in hypothyroidism disrupts the natural formation, nourishment, and metabolism of the *Dhatu*s. The imbalance in *Dhatu*s, particularly *Rasa*, *Rakta*, *Mamsa*, and *Meda*, explains the common symptoms of hypothyroidism, such as weight gain, muscle weakness, fatigue, and lethargy. There is an urgent need to find a safe and effective method that relieves symptoms and increases the sense of well-being.

The present study aims to assess the potential relationship between *Dhatu* (*Rasa*, *Rakta*, *Mamsa*, *Meda*) *Vaishamya* and hypothyroidism. Although Ayurvedic medicines for the disease are available, the Ayurvedic approach to its pathogenesis is unknown. Disruption of *Dhatu* due to the Dysfunction of *Agni* provides a basis for the pathology of the disease. The relation between *Dhatu Kshaya Vridhi* and hypothyroidism helps in giving a new line of *Ayurvedic* treatment.

## REFERENCES

- 1.P. Kashinath Shastri, Dr. Gorakhnath Chaturvedi- Charak Samhita, Vidhyotani Teeka, Chaukambha Bhartiya Academy, Varanasi, edition 2016.
2. Dr. Ambika Dutt Shastri, Ayurved Tattva Sandipika, Susruta Samhita, Chaukambha Sanskrit Sansthan, Varanasi, edition- 2018.
3. Tripathi B, Astanga Hridayam, First edition, Delhi, Chaukambha Sanskrit Pratishthan.
4. Namaste portal <http://namstp.ayush.gov>.
5. Essential of clinical pathology, third edition, Shirish M Kawathalkar MBBS MD(Pathology)
6. Textbook of Pathology, seventh edition, Harsh Mohan.
7. Digvesh bhoye-Clinical study on trimada as an adjuvant in the management of uncontrolled hypothyroidism-Thesis
8. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3743364/>

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