



## CONCEPTUAL STUDY OF HYPERTHYROIDISM AND BHASMAKA ROG

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## ABSTRACT

Hyperthyroidism is a common endocrine disorder characterised by an overactive thyroid gland, leading to an excessive production of thyroid hormones. This condition can result in a wide range of systemic effects on the body, affecting metabolism, cardiovascular function, and various organ systems. *Bhasmakarog*, a concept from *Ayurveda*, refers to an individual's sharp and intense metabolic capacity, which closely parallels the hypermetabolic state observed in Hyperthyroidism. This abstract explores the relationship between hyperthyroidism and *Bhasmakarog*, emphasising their commonality regarding heightened metabolic activity and its effects on the body. Both conditions involve an increased basal metabolic rate (BMR), leading to symptoms such as weight loss, increased heart rate, anxiety, and heat intolerance. Understanding the intersection of hyperthyroidism and *Bhasmakarog* can provide valuable insights for healthcare practitioners in optimising treatment strategies and improving the quality of life for patients dealing with this challenging condition.

**Keywords:** Hyperthyroidism, *Bhasmakarog*, Metabolism, *Agni*.

## INTRODUCTION

The body's endocrine system plays an essential role in both short-term and long-term regulation of metabolic processes. Both underactive and overactive thyroid disorders result in diseases which are often debilitating or life-threatening. Hyperthyroidism is a medical condition characterised by the overproduction of thyroid hormones by the thyroid gland. The thyroid gland in the front of the neck plays a crucial role in regulating the body's metabolism. Thyroid hormones, namely thyroxine (T4) and triiodothyronine (T3) influence various bodily functions, including heart rate, energy expenditure, and temperature regulation. When the thyroid gland becomes overactive and produces excessive amounts of these hormones, it can lead to hyperthyroidism. Hyperthyroidism can result in a range of symptoms, including rapid heartbeat (tachycardia), Increased sweating and sensitivity to heat, Weight loss despite increased appetite, Nervousness and anxiety, Fatigue and muscle weakness, Tremors in hands, Difficulty in sleeping, Changes in menstrual patterns. Hyperthyroidism is typically diagnosed through blood tests that measure thyroid hormone levels.

*Ayurveda* needs to emphasise the exact terminology used for the disease. Even though direct descriptions of the etiopathogenesis of thyroid disorders in *Ayurveda* are not available, Agni is a term used in *Ayurveda*, a traditional system of medicine from India. *Agni* refers to an individual's metabolic or digestive fire, which plays a vital role in the body's ability to digest food, absorb nutrients, and eliminate waste. In *Ayurveda*, four types of Agni are mentioned: *Samagni*, *Vishmagni*, *Teekshnagni*, and *Mandagni*. *Acharya Charaka* explains that *Ksheen Kapha* and *Prakopa of Vata, Pitta* led to excessive elevation of Agni, causing *Atyagni/ Bhasmakarog*<sup>[1]</sup>. The features of *Bhasmakarog* have striking similarities with the symptoms of hyperthyroidism, and this concept is of great significance in this regard. *Bhasmakarog* can lead to various health issues, including digestive disorders and poor nutrient absorption. As described by *Acharyas*,

*Bhasmakarog* leads to *Dhatu Soshana*. These concepts can be interconnected as hyperthyroidism represents a medical condition involving an overactive thyroid gland, which can be seen as a disturbance of the body's natural balance, including *Bhasmakarog*, leading to various health issues.

## DISCUSSION

The study aims to explore the relationship between hyperthyroidism, a medical condition characterised by an overactive thyroid gland, and *Bhasmakarog*, an *Ayurvedic* concept referring to increased digestive fire.

### Hyperthyroidism

Hyperthyroidism is a medical condition characterised by the thyroid gland's excessive production and secretion of thyroid hormones. Thyroid hormones, primarily thyroxine (T4) and triiodothyronine (T3) are crucial in regulating various bodily functions, including metabolism, heart rate, and body temperature. When the thyroid gland becomes overactive and produces an excessive amount of these hormones, it can lead to a range of symptoms and health problems. Thyroid hormones have a significant impact on cardiac function and structure. Excess thyroid hormone affects cardiovascular hemodynamics, causing high-output heart failure and later on causes dilated cardiomyopathy<sup>[2]</sup>.

Key points about hyperthyroidism include:

1. **Thyroid Gland:** The thyroid gland is a small butterfly-shaped gland in the neck, just below the Adam's apple. It is responsible for producing and releasing thyroid hormones into the bloodstream.
2. **Causes:** Hyperthyroidism can have various causes, the most common being Graves' disease, an autoimmune disorder where the immune system mistakenly stimulates the thyroid gland to produce more hormones. Other causes include toxic nodular goitre, thyroiditis, and certain medications.
3. **Symptoms:** Hyperthyroidism can manifest with a wide range of symptoms, which may include:

- Unexplained weight loss despite increased appetite
  - Rapid or irregular heartbeat (palpitations)
  - Anxiety, nervousness, and restlessness
  - Tremors in the hands and fingers
  - Heat intolerance and excessive sweating
  - Fatigue and muscle weakness
  - Difficulty sleeping
  - Frequent bowel movements or diarrhoea
  - Changes in menstrual patterns
  - Enlargement of the thyroid gland (goitre)
  - Eye problems, such as bulging eyes or double vision (often seen in Graves' disease)
4. **Diagnosis:** A healthcare provider can diagnose hyperthyroidism through a combination of medical history, physical examination, blood tests (including thyroid function tests), and sometimes imaging studies like thyroid ultrasound or radioactive iodine scans.
5. **Treatment:** The treatment of hyperthyroidism depends on its cause and severity. Standard treatment options include:
- Medications: Antithyroid drugs like methimazole or propylthiouracil to reduce thyroid hormone production.
  - Radioactive iodine therapy: A radioactive form of iodine is taken orally to destroy the overactive thyroid cells.
  - Surgery: Surgical removal of part or all of the thyroid gland (thyroidectomy) may be necessary in some cases.
6. **Complications:** If left untreated or poorly managed, hyperthyroidism can lead to severe complications, including heart problems, osteoporosis, and a potentially life-threatening condition known as thyroid storm.
7. **Prognosis:** With appropriate treatment and management, most people with hyperthyroidism can lead healthy, everyday lives. It is essential to work closely with a healthcare provider to monitor thyroid function and adjust treatment as needed.

In conclusion, hyperthyroidism is a medical condition characterised by the overproduction of thyroid hor-

mones, leading to a range of symptoms and potential health complications. Early diagnosis and appropriate treatment are essential for effectively managing this condition and improving the patient's quality of life.

### **BHASHMAKAROG**

*Charak Samhita* delineates four types of Agni based on the *Dosha* constitution in the body: *Samagni*, *Mandagni*, *Vishamagni*, and *Tikshnagni*. *Tikshnagni* denotes an exceptionally rapid digestion process, regardless of food type. According to *Acharya Shushruta*, heightened digestive capacity, known as *Tikshnagni*, accelerates food breakdown, inducing a strong appetite. This state is primarily attributed to pitta dosha and can lead to *Bhashmakroga*. In *Garhnirog Chikitsa Adhyaya*, *Acharya Charaka* explains that an increase in *Jatharagni* due to *Ksheen Kapha* and *Prakopa of Vata, Pitta* manifesting as heightened hunger and thirst. Failure to consume food by a *Bhashmak Rogi* exacerbates *Jatharagni*, leading to *Dhatu Pachan-Karshytva* and eventual demise<sup>[3]</sup>.

*Acharya Bhavprakash*, in the 16th Century, discusses *Bhashmak Rog* within the *Madhyam khand Jathragni-vikara*<sup>[4]</sup>. He explains that after consuming excessively dry and heavy foods and other causative factors, the aggravated *Kapha* diminishes due to increased *Vata*. This aggravated *Vata* then stimulates *Pitta* due to its movement towards the tissues, resulting in the manifestation of *Bhashmak Rog*, which is characterised by symptoms such as sweating.

*Acharya Sharangadhar* in 13th century had described four types of Agni with its respective *Dosh-Prakopa* (vitiation) in *Sharangadhar Samhita Purvakhand*, *Rog-Gyana-Prakaranas Agnivikar*, i.e, *Vishamagni-Vata*, *Tikshnagni-Pitta*, *Mandagni-Kapha* and *Bhashmakagni-Vata-Pitta*<sup>[5]</sup>.

### **Lakshanas of Bhashmak Rog-**

#### **In Charak Samhita-**

- *Kshudha Vriddhi*
- *Trushna*
- *Swash*
- *Murcha*
- *Daha*
- *Daurbalya*

• *Mrityu*  
**In Yogratnakar<sup>(6)</sup>-**

- *Trushna*
- *Daha*
- *Murcha*
- *Bhram*
- *Kasa*
- *Shoph*
- *Vitshosh*
- *Moha*
- *Shramkarmakari*
- *Swhash*

• *Kasa*

**In Bhavaprakash-Trushna, Sweda, Daha, Murcha  
 RELATION BETWEEN HYPERTHYROIDISM  
 AND BHASMAK ROG:**

*Ayurveda does not explicitly refer to the thyroid gland or hyperthyroidism. However, due to their shared pathogenesis, which is characterised by hypermetabolism, conditions like hyperthyroidism and Bhasmak rog can correlate.*

The symptoms of hyperthyroidism and *Bhasmakrog*, as described by various *Acharyas*, exhibit a notable similarity-

S.NO.	Lakshan of BhasmakRoga <sup>[3-6]</sup>	Symptoms of Hyperthyroidism <sup>[7]</sup>
1.	<i>Trushna</i>	Thirst
2.	<i>Daha</i>	Heat intolerance
3.	<i>Moha</i>	Nervousness, Irritability, Loss of Concentration
4.	<i>Shwas</i>	Exertion, Dyspnea
5.	<i>Kasa</i>	Exacerbation of asthma
6.	<i>Sweda</i>	Sweating
7.	<i>Shopha</i>	Pruritus
8.	<i>Murcha</i>	Fatigue
9.	<i>Bhrama</i>	Vertigo
10.	<i>Dina</i>	Loss of weight
11.	<i>Shramakarmakari</i>	Hyperreflexia
12.	<i>Vita shosh</i>	Constipation
13.	<i>Kshudhavrudhi</i>	Increase Appetite

**RELATION BETWEEN HYPERTHYROIDISM  
 AND AVARANA**

*Samanavrita Udana* is a condition in which *samanavata*, when aggravated, blocks the *udanavata* located in the region of the thyroid gland. The strong *samanavata* will surround and envelope the *udanavata* and disturb its functions. Due to the severity of *samanavata*, the digestive fire in the stomach will get too intense. The combination of severe *vata* and *pitta* with deterioration of *kapha* will lead to heated-up environments in the stomach. This will influence the *Agni* of all the tissues and elements in the body. All these events will eventually lead to agitated metabolism. This enhanced *samanavata* associated with the digestive fire (*Agni Bala*) will go towards and hit *udanavata*, which is located in the chest and throat regions. The disturbed and agitated *udanavata* will excessively express itself in an attempt to overcome the attack from *samanavata*. The thyroid gland in the

area of *udanavata* will produce excessive thyroid hormones. This leads to the manifestation of symptoms similar to those of hyperthyroidism. *Pittavrita Udana* is a condition where aggravated *Pitta* envelops *Udanavata* and disturbs its functions. When *Pitta* influences the *Udanavata*, initially, the *Udanavata* is blocked. Later, the provocation of *Udanavata* with or without *pitta* will cause the thyroid gland to produce more thyroid hormones. The site of *Udana* is also the primary site of *kapha*. Due to the influence of *Pitta* and *Vata*, *Kapha* deteriorates. Increased *Vata* and *Pitta* associated with decreased *Kapha* marks the events leading to exaggerated metabolism as occurs in hyperthyroidism<sup>[8]</sup>.

**CONCLUSION**

*Ayurvedic* texts don't directly address hyperthyroidism, but similar conditions like *Atyagni*, *Tikshnagni*, or *BhasmakRoga* affect metabolism. The *Lakshana* of *Bhasmakrog* shows a marked similarity with that

of hyperthyroidism. In today's sedentary lifestyle, hyperthyroidism has become a significant concern. However, conventional treatments often have harmful side effects, worsening the patient's health over time. This highlights the need for *Ayurvedic* approaches, which offer promising results without such drawbacks. *Ayurvedic* treatments include specific foods, herbs, therapies like *Virechan karma*, and practices like *yoga* and *pranayama*. Following *Ayurvedic* dietary guidelines and adopting a healthy lifestyle can significantly aid in managing hyperthyroidism.

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