



## A critical analysis of hypothyroidism in Ayurveda

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### ABSTRACT:

Thyroid disease is a global health problem that can substantially impact well-being, particularly in twenty first century globalization, modern technology, sedentary life style, work over load is increasing day by day & this led to various non communicable diseases. WHO says that, diseases of the thyroid gland are among the most abundant endocrine disorders worldwide second to diabetes mellitus. Nowadays, Hypothyroidism is the major problem manifesting in the whole world. Hypothyroidism is believed to be a common health issue in India, as it is worldwide. Hypothyroidism is defined as failure of the Thyroid Gland to produce sufficient thyroid hormone to meet the metabolic demands of the body. The prevalence of Hypothyroidism is high affecting approximately one in 10 adults in the study population. In urban India it is 10.95% & major portion of hypothyroidism 3.47% remain undetected. Female gender,

pregnancy, childhood & old age having significant association with hypothyroidism.

**Aim-** To study the concept of hypothyroidism from *Ayurvedic* literature.

**Objective-** To study etiopathogenesis of hypothyroidism from *Ayurvedic* literature.

**Observations** - Various etiological factors highlighted in classical texts like *Ati Sevana* of *Madhura Rasa*, *Mithyahara Vihar*, *Vishamasana* & pathogenesis like *Kaphaja Nanatmaja Vikara*, increased *Vata* and *Kapha* leads to *Medo Dhatu* accumulation in *Galapradesha* leading *Galaganda*. We will be analysing different etiologies & pathogenesis critically with the help of various ayurvedic classics to justify etiopathogenesis of Thyroid Disorders in Ayurveda.

**Conclusion** – We screened *Bhritrayi* and *Laghutrayi* for different etiological factors influencing *Agnivaishamyā* and *Galaganda/Gandamala*. We got *Kapha Prakopaka*, *Agnimandyakara Nidanās* predominantly for hypothyroidism.

**KEYWORD:**

Hypothyroidism, Thyroid diseases, *Agnivaishamyata*, *Gandamala*, Ayurveda.

**INTRODUCTION:**

Hypothyroidism is defined as failure of the thyroid gland to produce sufficient thyroid hormone to meet the metabolic demands of the body. Untreated hypothyroidism can contribute to hypertension, dyslipidemia, hypothyroidism is the most common endocrine disorder observed all over the world in present time. It occurs about 7-8 times more frequently in females than males. In infants, symptoms do not appear till six months because enough hormone is present in mother's milk. It affects the quality of life of individuals. The only treatment available is synthetic thyroxine tablets which patients had to take lifelong.<sup>[1]</sup>

The treatment of hypothyroidism is quite difficult due to many adverse effect and lifelong therapy, so it is need of this era to look for safe and effective management for hypothyroidism is Ayurveda. In Ayurveda thyroid disorders can be understood with the concept of *Agni Vaishamyata* and *Galaganda /Gandamala*. *Charaka* includes *Galaganda* in *Nanatmaja Kaphaja Roga* in *Sutra Sthana Adhyaya* 20.<sup>[2]</sup> In *Trisothiya Adhyaya* 18 of *Sutrasthana*, *Galaganda* has been described.<sup>[3]</sup> Its *Asadhya* condition is explained in *Shavathu Chikitsa Adhyaya* 12.<sup>[4]</sup> *Sushruta* has described *Galaganda* in detail in *Nidansthana Adhyaya* 11<sup>[5]</sup> and has also given its management in *Chikitsa Sthana* 18.<sup>[6]</sup> *Vagbhata* described *Galaganda*

in *Mukhroga Adhyaya Uttartantra* 21 with its treatment.<sup>[7]</sup>

This review is carried out to understand hypothyroidism according to principle of Ayurveda. Presentation of hypothyroidism is reviewed critically by searching etiology, pathogenesis and symptoms from various research databases. Pathogenesis of hypothyroidism are studied in terms of imbalance of *Dosha*, *Dushya*, *Srotas* etc.

**AIMS:**

To study the concept of hypothyroidism from Ayurvedic literature.

**OBJECTIVES:**

To study etiopathogenesis of hypothyroidism from Ayurvedic literature.

**MATERIALS AND METHODS:**

Ayurvedic classical texts, Past articles and internet sources were reviewed critically to understand hypothyroidism in Ayurved.

**OBSERVATION:**

Thyroid gland secretes thyroxine, T4 and small amounts of T3. Its principal role is to regulate tissue metabolism. In infants, adequate supply of thyroid hormone is necessary for the development of normal CNS – activity in first one to two years of life. It is also required for normal growth and bone maturation in children. Human body, despite all of its functions can withstand marked reduction in thyroid hormone for long periods although at the cost of abnormal operation of many organ systems.<sup>[8]</sup>

Various biological effects are mentioned as below growth & development,

energy metabolism, nervous system, heart, muscle, caloric metabolism, respiratory system, skin, colon, sex, vitamins, carbohydrate metabolism, protein metabolism, fat metabolism, calcium & phosphorus.

In *Ayurveda* there is no direct evidence of hypothyroidism, it is a disease of thyroid gland i.e., *Dushti* of thyroid gland. In *Samhita* it is described that it is not possible to give the name to all the diseases.<sup>[9]</sup> In the pathological condition, when the enlargement of thyroid gland occurs, it is visualized superficially, in this condition Acharya described it and gave a title i.e., *Galganda*. But on the basis of its clinical presentation, it can be correlated with different entities which one explained either as symptoms or diseases, so it is difficult to give a single Ayurvedic term for it.

### CLINICAL FEATURES OF MANIFESTED DISEASE:

*Charaka* said, *Shwetya* (whiteness), *Shaitya* (coldness), *Kandu* (itching due to coarse skin), *Sthirya* (firmness), *Gaurava* (heaviness), *Supti* (numbness), *Bandha* (obstruction), *Chirkaritva* (chronicity) etc. are the effects produced in the body by the action of *Kapha*. The condition accompanied with any of the above symptoms should be diagnosed as a *Kapha* disorder.<sup>[10]</sup>

<i>Nanatmaja Roga</i> of <i>Kapha Dosha</i>	Signs & Symptoms of Hypothyroidism
<i>Tandra</i>	Somnolence
<i>Atinidra</i>	Excessive Sleep
<i>Hridayolepa</i>	Pericardial Effusion
<i>Gurgatrata</i>	Heaviness In Body

<i>Aalasya</i>	Laziness
<i>Balasaka</i>	Weakness
<i>Apachana</i>	Indigestion
<i>Galganda</i>	Goiter
<i>Atisthula</i>	Weight Gain
<i>Svetavbhasta</i>	Pale Skin Color
<i>Kanthoplepsh</i>	Serous fluid accumulation in vocal cords

### INVOLVEMENT OF TRIDOSHA IN HYPOTHYROIDISM:

Looking in to clinical presentation of hypothyroidism, involvement *Tridosha* should be considered in which *Kapha Dosha* is main factor associated with *Pitta Kshaya* and *Margavaranajanya Vata Vriddhi* can be considered.

Sr. No.	Symptoms	Dosha involved
1	Weight Gain	<i>Kapha vruddhi, Pitta Kshaya</i>
2	Puffiness of body Features	<i>Kapha vruddhi</i>
3	Loss of appetite	<i>Kapha Vriddhi; PittaKshaya</i>
4	Dry and coarse Skin	<i>Vata Vriddhi; Pitta Kshaya</i>
5	Minimal/absent Sweating	<i>Pitta Kshaya</i>
6	Anemia	<i>Kapha Vriddhi; Pitta Kshaya; Vata Vriddhi</i>
7	Constipation	<i>Vata Vriddhi</i>
8	Hoarseness of voice	<i>Kapha Vriddhi; Vata Vriddhi</i>
9	Generalised aches, pain	<i>Vata Vriddhi</i>
10	Muscular	<i>Vata Vriddhi</i>

	cramps, stiffness	
11	Sluggishness	<i>Kapha Vriddhi</i>

Most of the symptoms of hypothyroidism show *Kapha* dominance. Glycosaminoglycans deposition in the tissues can be considered as *Kapha Vargiya Dravya* which will cause obstruction in the channels and hence obstruction to the proper movement of *Vayu* producing *Margavaranajanya Vata Prakopa*. Impaired metabolism can be considered as *Pitta Dushti*.

#### INVOLVEMENT OF DHATU IN HYPOTHYROIDISM:

In the pathogenesis of hypothyroidism involvement of *Rasa* and *Meda Dhatu* can be considered predominantly.

Sr. No.	Involved Dhatu	Symptoms
1	<i>Rasa</i>	Weight Gain; Loss of appetite (hypochlorhydria); Heaviness in the body, lethargy; Generalised aches; Somnolence; premature aging symptoms like hair loss etc.; Cold intolerance; Puffiness; Anemia; Menstrual disturbances; Infertility
2	<i>Rakta</i>	Slow pulse rate; Dry and coarse skin; Slowing of mental activity; Lethargy
3	<i>Mams</i>	Heaviness in the body; Muscle ache; Granthi; Galaganda

4	<i>Meda</i>	Tiredness; Sleepiness; Sluggishness; Hyperlipidaemia; Dyspnea on exertion
5	<i>Asthi</i>	Osteoporosis, Osteoarthritis
6	<i>Majja</i>	Osteoporosis;
7	<i>Shukra</i>	Loss of libido; Infertility

#### INVOLVEMENT OF AGNI IN HYPOTHYROIDISM:

According to allopathic systems, metabolic activity of the body is controlled by thyroid hormone secretion and if we move our eyes towards Ayurveda, we will find that metabolic processes of the body are under the control of *Jatharagni*, *Bhutagni Dhatvagni* and *Doshas*, so the cause of hypothyroidism is alteration in metabolic activity which, according to Ayurveda, may be vitiation of mainly *Rasa Dhatvagni*, *Kapha Dosha* and vitiated *Vata* due to *Margavarodha* by *Kapha*.<sup>[11]</sup>

Here in case of Hypothyroidism *Dhatvagnimandya* is mainly followed by *Jatharagnimandya*. Due to above pathological sequences, vitiated *Rasa Dhatu* and *Malarupa Kapha Dosha* is formed because of impairment of other *Rasa Dhatvagni* <sup>[12]</sup> and thus, a chain of pathological events is started.

This vitiation of *Agni* results in formation of *Ama Dosha* i.e., undigested food. Due to poor strength of *Jatharagni*, *Adhya Dhatu* remains undigested and this undigested and vitiated *Rasa* in *Amashaya* is known as *Ama*. <sup>[13]</sup> In this way it causes vitiates *Rasa Dhatu*.

#### INVOLVEMENT OF AMA:

*Ama* is also play a role in pathogenesis. *Acharya Vagbhata*, described the general symptoms of *Ama* are: <sup>[14]</sup> which may be correlated with features of Hypothyroidism

Symptoms of <i>Ama</i>	Signs & Symptoms of Hypothyroidism
<i>Balabhramsha</i>	General Weakness
<i>Gaurava</i>	Feeling Of Heaviness of The Body
<i>Alasya</i>	Laziness
<i>Apakti</i>	Indigestion
<i>Malasanga</i>	Constipation
<i>Aruchi</i>	Anorexia
<i>Klama</i>	Lethargy

#### **SAMPRAPTI:**

According to *Acharya Sushruta*<sup>[15]</sup> vitiated *Doshas* while Circulating in the body and get accumulated where ever, find *Khavaigunya* in *Srotas*, they get '*Sanga*' by *Doshadushya sammurchana* and produce *Vyadhi*.

As explained before *Kapha Dosha* plays major role in Hypothyroidism. *Vridhdha Kapha* by obstructing the channels vitiates the *Vata Dosha* also and *Jatharagni* gets impaired due to this *Vridhdha Kapha*, which leads to *Rasadhatu Dushti*. This *Dushita Rasadhatu* plays an important role in pathogenesis.

*Dhatvagnimandhya* is a major feature of the disease which produces *Ama*. In Hypothyroidism, hormonal disturbances make a many metabolic disturbances and decrease in basal metabolic rate which leads to resulting from this pathogenesis. Many signs and symptoms related with decreased metabolism.

#### **CHIKITSA:**

As mentioned by *Charak* exact nomenclature is not necessary to all the diseases. It insists on diagnosis of constitutional status of the disease.

#### **CHIKITSA SIDDHANT**

- *Nidan parivarjan*
- *Hetuviparit chikitsa*
- *Doshviparit chikitsa*

Genetical and hereditary defects of hypothyroidism, comes under *Adibala Pravritta Vyadhi* and these are *Asadhya*.

Congenital defects like agenesis of thyroid gland, dysgenesis comes under *Janmbala Pravritta Vyadhi*. These are preventable during pregnancy by following proper *Pathyapathya*.

Iodine deficiency is one of the causes for hypothyroidism, as per *Guna Samanya Sidhhanta* drug which contains iodine like *Shigru* are advised.

Another main cause autoimmune thyroid disease is characterized by gradual lymphatic infiltration and progressive destruction of the functional thyroid tissue. So, it may *Yapya*, means the treatment should be continued lifelong with immune modulator drugs.

#### **RESULT & DISCUSSION:**

##### **Samprapti Ghataka:** <sup>[16][17]</sup>

To study manifestation of hypothyroidism in the aspect of Ayurvedic concepts of *Dosha*, *Dushya* and *Srotas* involvement the following factors play their role in *Samprapti* of Hypothyroidism.

- **Dosha:** *Kapha Vridhdhi* associated with *Pitta Dushti* and *Margavaranajanya Vata Vridhdhi*
- **Dushya:** *Rasa, Meda* predominant



- **Agni:** *Jatharagni, Dhatvagni*
- **Ama:** *Jatharagni mandya Janita, Dhatvagnimandya Janita*
- **Adhithana:** Thyroid Gland
- **Udbhavasthana:** *Amashaya*
- **Rogamarga:** *Bahya*
- **Vyaktisthana:** *Sharira*

#### CONCLUSION:

In Ayurveda thyroid disorders can be understood with the concept of *Agni Vaishamyata* and *Galaganda/ Gandamala*. Various etiological factors highlighted in classical texts like *Ati Sevana* of *Madhura Rasa*, *Mithyahara Vihar*, *Vishamasana* & pathogenesis like *Kaphaja Nanatmaja Vikara*, increased *Vata* and *Kapha* leads to *Medo Dhatu* accumulation in *Galapradesha* leading to *Galaganda*. *Nidana's* are classified into *Aharaja Nidana* and *Viharaja Nidana*. We screened *Bhritrayi* and *Laghutrayi* for different etiological factors influencing *Agnivaishamyata* and *Galaganda /Gandamala*. We got *Kapha Prakopaka, Agnimandyakara Nidanas* predominantly for hypothyroidism.

#### REFERENCES:

1. Stanley Davidson. In: Colledge NR, Waller BR, Ralston SH, (eds.) Davidson's Principles and Practice of Medicine. 16th edi. U.K.: Churchill Livingstone Elsevier; 2010. Page 741.
2. Charak Samhita, Vd. Y. G. Jyoshi, Sutrasthana, Maharog Adhyaya 20 /17 , Pune, Vaidyamitra Prakashan, 2009, 266.
3. Charak Samhita, Vd. Y. G. Jyoshi, Sutrasthana Trishothiya Adhyaya 18/21, Pune, Vaidyamitra Prakashan, 2009, 250.
4. Charak Samhita, Vd. Vidyadhar Shukla and Vd. Ravidatta Tripathi, Chikitsasthana, Shwayathuchikitsa Adhyaya 12/79, Varanasi, Chaukhamba Surbharati Prakashan, 2012, 284.
5. Sushrut Samhita, Dr. Aanantram Sharma, Nidansthana, Granthyapachigalganda Nidana Adhyaya 11/23-30, Varanasi, Chaukhamba Surbharati Prakashan, 2013, 543.
6. Sushrut, Dr. Aanantram Sharma, Chikitsasthana, Granthyapachigalganda Chikitsa Adhyaya 18/43-55, Varanasi, Chaukhamba Surbharati Prakashan, 2013, 317.
7. Ashtanghridaya, Dr. Brahmanand Tripathi, Uttarsthana, Mukharog-Vigyaniya-Adhyaya 21/53, Varanasi, Chaukhamba Surbharati Prakashan, 2013, 1031.
8. Unnikrishnan AG, Menon UV. Thyroid disorder in India: An epidemiological perspective.
9. Charak Samhita, Vd. Y. G. Jyoshi, Sutrasthana, Trishothiya Adhyaya 18/44, Pune, Vaidyamitra Prakashan, 2009, 253.
10. Charak, Vd. Y. G. Jyoshi, Sutrasthana Maharoga Adhyaya 20/18, Pune, Vaidyamitra Prakashan, 2009, 266.
11. Charak Samhita, Vd. Vidyadhar Shukla and Vd. Ravidatta Tripathi, Chikitsasthana, Grahaidoshchikitsa Adhyaya 15/3, Varanasi, Chaukhamba Surbharati Prakashan, 2012, 358.

12. Charak Samhita, Vd. Vidyadhar Shukla and Vd. Ravidatta Tripathi, Chikitsasthana, Grahanidoshchikitsa Adhyaya 15/18, Varanasi, Chaukhamba Surbharati Prakashan, 2012, 365.
13. Ashtanghridaya, Dr.Brahmanand Tripathi, Sutrasthana, Doshopkramniya-Adhyaya 13/25, Varanasi, Chaukhamba Surbharati Prakashan, 2013, 188.
14. Ashtanghridaya, Dr.Brahmanand Tripathi, Sutrasthana, Doshopkramniya-Adhyaya 13/25, Varanasi, Chaukhamba Surbharati Prakashan, 2013, 188.
15. Sushrut, Sharma A, Sutrasthana, Vyadhisamuddeshiya-Adhyaya 24/10, Varanasi, Chaukhamba Surbharati Prakashan, 2013, 206.
16. Kayachiktisa, Vd. Y.G.Joshi, Sau.Sampada Koptekar, 2001 page no. 281-285.
17. Sushruta Samhita, Edited by Shastri A, Chaukhambha Sanskrit Samsthan, Varanasi, 9thEdition, 2051 NidanaSthana, Granthya pachyarbudagal gandanam Adhyaya, 11/29. Page no. 356.

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