

CRITICAL STUDY OF HYPOTHYROIDISM IN THE LIGHT OF AYURVED PERSPECTIVE

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**ABSTRACT**

There is no exact correlation between the Thyroid gland and Hypothyroidism in Ayurveda. But the function of the Thyroid gland can be compared with the action of Agni, *Tridosha* and *Dhatu*s. However, the symptoms of Hypothyroidism are correlated with the symptoms of *Ama*, *Ojovyapat*, *Kaphavritta Udana*. If we find the type of disease, then all endocrine disorders are *Adhyatmik Vyadhi* which is described in *Sushrut Samhita*. Causative factors of *Adhyatmik Vyadhi* are perfectly matched with Hypothyroidism in the present era. Ayurveda is one of the oldest and purest forms of treatment available today. Ayurveda always emphasizes that, if you won't find the disease in *Samhita/Text*, then fit all the symptoms of that disease in its basic principles and then treat it as per Ayurvedic perspective. Now a days, different types of symptoms are seen in different types of people, as Hypothyroidism involves impairment of various systems i.e., *strotas*. Due to the advancement of technology and instrumentation, it is easier to diagnose Hypothyroidism based on a pathological investigation. But modern management of Hypothyroidism is not satisfactory. That's why for safe, effective, and preventive management, find the pathogenesis of disorders according to the Ayurvedic perspective.

Keywords: Hypothyroidism, Agni, Tridosha, Dhatu, Ama, Ojovyapat, Kaphavritta Udana.

INTRODUCTION

In the present era, no of people are suffering from Thyroid problems and the reasons are unhealthy, inactive food, stressful lifestyle, unwanted medicines like contraceptive pills, long term use of higher medicines, antibiotics, hereditary, etc. And it causes malfunctioning of the Thyroid gland. Due to malfunctioning, the Thyroid gland doesn't work properly. It causes an overall imbalance in the form of fatigue, a sudden increase in weight, a sudden decrease in weight, hair fall, bulging eyes, mood swings, depression, menstrual disorders, infertility; etc. The thyroid gland is the most important part of the endocrine system, situated in the lower part of the front and side of the neck. T3 and T4 are two primary hormones produced by the Thyroid gland⁽¹⁾. There is no exact description of the thyroid gland in Ayurveda, but the functionality can be correlated with the function of *Agni, Tridosha, Dhatus*. There are many allied complaints of thyroid problems, of which Hypothyroidism is the most commonly seen problem in clinical practice. When the Thyroid gland is inactive and not able to produce enough hormones, is called Hypothyroidism. It can be compared with symptoms of *Ama, Ojovyapat, Kaphavritta Udana*. The prevalence of Hypothyroidism in the overall study population was 10.95%. The prevalence of hypothyroidism in adults is very high in this era⁽²⁾. In women, the prevalence was higher at 11.4% when compared with men⁽³⁾. Even though, modern management of Hypothyroidism will only manage the hormonal imbalance. But side effects and complications of these Excessive hormonal replacement therapy are very serious, long term and dangerous to health. Hence, to control these

complications this is the attempt regarding this topic that to study the concept of hypothyroidism from various points of view of Ayurvedic principles for further safe, effective, and preventive management.

MATERIAL AND METHOD

- The study was carried out by literature search.
- The study of various classical Ayurvedic texts.
- Research papers, online data, related websites.
- All the information has been analyzed to understand Hypothyroidism according to the Ayurvedic view.

Analysis of Thyroid hormones function in Ayurvedic view:

There is no exact correlation between the Thyroid gland in Ayurveda. But, the functions of the thyroid gland can be correlated with the action of *Agni, Tridosha, 7 Dhatus* predominantly.

Involvement of Doshas:

All neurological regulations of the endocrine gland are performed by *Vatadosha*. The thyroxine hormone of the thyroid gland can be correlated with the function of *the pitta*. *Pitta* is responsible for all kind of metabolism. Here, it should be made clear that BMR is regulated by *pitta*⁽⁴⁾.

Functions of Agni:

Agni is an important factor of digestion and metabolism in our body. Ayurveda described that *Agni (Dehagni)* is the cause of life, colours, strength, health, enthusiasm, Plumpness, complexion, *Oja, Teja*(energy), other varieties of *Agni* and *prana* (life energy)⁽⁵⁾.

Agni is classified into 3 groups i.e., *Jatharagni, Bhutagni, Dhatwagni*⁽⁶⁾.

Table 1:

1. Jatharagni	Present in stomach and duodenum. Basic functions are macro digestion of food.
2. Bhutagni	present in 5 <i>bhutas</i> i.e., <i>prithvi, aap, tej, vayu, aakash</i> . The basic function is micro digestion of food i.e., nourishing their own specific element of the body.
3. Dhatwagni	All 7 <i>dhatwagni</i> contains their own <i>Agni</i> to metabolize the nutrient material supplied to them through their own <i>strotas</i> . It gives strength and nourishment to other <i>Agni</i> in the body.

Table 2: Correlation of functions of *Agni* with functions of thyroid hormones

Functions of <i>Agni</i> ^(5,7)	Functions of Thyroid Hormones ⁽⁸⁾
1. <i>Paka</i>	- calorogenic action - Regulates metabolism of carbohydrates and fats. -Synthesis of proteins in the cells.
2. <i>Bala</i>	essential for the normal activity of skeletal muscles.
3. <i>Utsaha</i>	essential for normal sexual function.
4. <i>Ushma</i>	Induced thermogenesis
5. <i>Kshudha</i>	Decreases secretion and movement of GI Tract
6. <i>Medha</i>	- stimulating factors for the nervous system. - increases blood circulation to the brain.
7. <i>Varna</i>	necessary factor for Erythropoiesis.

Table 3: Correlation of functions of *Dhatus* with functions of Thyroid hormones:

<i>Dhatus</i>	Functions of <i>Dhatu</i> ⁽⁹⁾	Functions of Thyroid hormones ⁽⁸⁾
1. <i>Ras</i>	<i>Preenana</i>	Thyroxine has a direct effect on the heart.
2. <i>Rakta</i>	<i>Jeevana</i>	One of the important general factors necessary for erythropoiesis.
3. <i>Mamsa</i>	<i>Lepa</i>	Essential for normal Activities of skeletal muscles.
4. <i>Meda</i>	<i>Snehana</i>	maintaining the weight of the body.
5. <i>Asthi</i>	<i>Dharana</i>	The general and specific effect on growth. Closure of epiphysis under the influence of thyroxine.
6. <i>Majja</i>	<i>Purana</i>	Essential for the development and the normal functions of CNS.
7. <i>Shukra</i>	<i>Garbhotpadana</i>	Essential for normal sexual function.

Concepts of Hypothyroidism:

Hypothyroidism is the condition resulting from a lack of effects of thyroid hormones on body tissues. Primary hypothyroidism is due to disease of the thyroid itself and secondary hypothyroidism is due to TSH deficiency ⁽¹⁰⁾.

Analysis of Hypothyroidism in Ayurvedic view:

- **Ashtoninditiya purush**-In *Charaka samhita*, *Ashtoninditiya purushas* have been described very well, which can be taken as functional disorders of the endocrine gland, from which signs and symptoms of *Sthaulya i.e. sthulata* (weight gain), *Ayushorhas* (morbidity due to complications such as cardiovascular diseases), *Javoparodha* (Lethargy), *Kruchravyavay* (loss of libido), *daurbalya* (fatigue, weakness), *swedbaddha* (decrease in sweat), *atikshut* (increase in appetite), *atipipasa* (increase in thirst), etc. are nearly similar to signs and symptoms of hypothyroidism ⁽¹¹⁾.

- **Adhyatmik vyadhi**- Endocrine disorders are an *Adhyatmik vyadhi* as per Ayurveda, which is mentioned in *Sushrut samhita*. *Atma* is the context that means the body along with the mind. The diseases manifesting in the body and mind level, are called *Adhyatmik vyadhi* ⁽¹²⁾. They are of 3 types:

1. *Adibalapravritta vyadhi*-caused due to morbidity of ovum and sperm (hereditary hypothyroidism)
2. *Janmabalapravritta vyadhi*- the disease which occurs in a child due to improper diet and lifestyle practices followed by the mother during the conception and developmental stages of the foetus. (Congenital hypothyroidism)
3. *Doshabalapravritta vyadhi*-the diseases caused due to imbalance of *vata, pitta, kapha* and due to faulty diet and behaviour, upheaves of the two *manasik doshas i.e., rajas and tamas*.

- **Galganda**-

There is no direct mention of thyroid disorders in Ayurveda, but the disease *Galganda* is directly men-

tioned in various Ayurveda Samhitas. *Galganda* has been defined as the swelling, big or small, which hangs like scrotum in the neck. *Aacharya Charaka* has described the disease *Galganda* in 20 varieties of *kaphaj Vikaras* ⁽¹³⁾ and as vitiated *Medoj Roga* ⁽¹⁴⁾. Signs and symptoms of *Medoroga i.e., Sthaulya, Dourbalya, tandra, sluggishness, nidradhikya*, etc are like hypothyroidism. *Aacharya Sushrut, Aacharya-Vagbhat, Aacharya Madhavakara* mentioned separate chapters about *Galganda* ^(15,16,17) and described in 3 types i.e., *Vatik Galganda, Kaphaj Galganda, Medoj Galganda*. And their symptoms like *shwaskruccha, gilankashtata, dehavridhi, bhinnaswara, sirotfullita, bhrama*, etc. are like hypothyroidism.

• **Kaphavritta Udana-**

Here *gati* of *udana vayu* is obstructed due to *avarana* of vitiated *kapha*, and then it leads to *Kaphavritta*

udana ⁽¹⁸⁾. Symptoms of *Kaphavritta udana* i.e., *vaksvargraha* (difficulty in speech and voice), *Gurugatrata* (heaviness in the body), *Daurbalya* (weakness), *Vaivarnya* (discolouration), *Anannabhilasha* (anorexia), etc. are like hypothyroidism.

• **Ojovyapat-**

Oja is an essence of all *dhatu*s, which gives strength to the body, improves immunity power, and takes care of well-being of the body. Change in or modification of the natural properties of *oja* is known as *Ojovyapat* ⁽¹⁹⁾. Symptoms of *Ojovyapat i.e., Stabdhatata* (stiffness), *Gurugatrata* (heaviness in the body), *Vataj Shotha* (oedema), *varnabhed* (discolouration of the skin), *glani* (Fatigability), *Tandra*(drowsiness), *nidra*(sleepiness/somnolence), etc. which are comparatively like symptoms of hypothyroidism.

Table 4: Involvement of *Ama* in Hypothyroidism

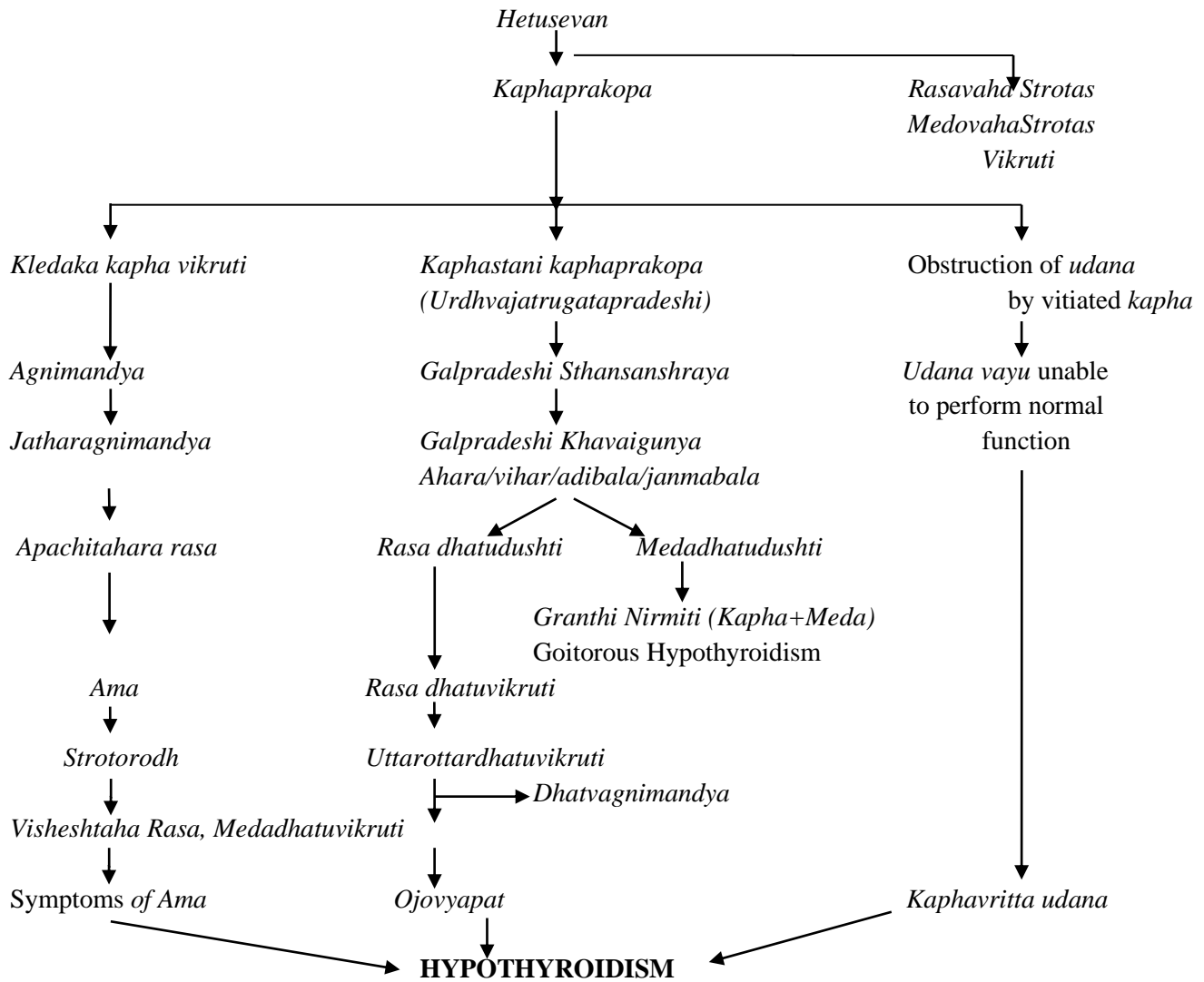
Symptoms of <i>Ama</i> ⁽²⁰⁾	Symptoms of Hypothyroidism ⁽²¹⁾
1. <i>Srotorodha</i>	Obstruction of the channel
2. <i>Balabhransha</i>	Loss of strength
3. <i>Gaurav</i>	Heaviness in the body
4. <i>Anilamudhata</i>	Delayed tendon reflexes/decreased bowel sound
5. <i>Alasya</i>	Lassitude
6. <i>Apakti</i>	Improper digestion
7. <i>Nishthiva</i>	Spit out/more of expectorations
8. <i>Malsang</i>	Constipation
9. <i>Aruchi</i>	Anorexia
10. <i>Klama</i>	Tiredness

Table 5: Involvement of *Doshas* and *strotas* in hypothyroidism ^(22,23):

Symptoms of Hypothyroidism ^(24,25)	<i>Doshas</i> Involved ⁽²⁶⁾	<i>Strotas</i> Involved ⁽²⁷⁾
Weight gain	<i>Kapha</i>	<i>Rasvaha, Medo vaha</i>
Loss of appetite	<i>Kapha</i>	<i>Amavaha, Rasvaha</i>
Constipation	<i>Vata</i>	<i>Purishvaha</i>
The puffy appearance of the body	<i>Kapha</i>	<i>Rasvaha</i>
Sluggishness	<i>Kapha</i>	<i>Rasvaha</i>
Fatigue/Tiredness	<i>Vata, Kapha</i>	<i>Rasvaha</i>
Anaemia/Pallor	<i>Pitta</i>	<i>Rasvaha, Raktvaha</i>
Hoarseness of Voice	<i>Kapha, Vata</i>	<i>Pranavaha</i>
Dry coarse skin/hair loss	<i>Vata</i>	<i>Asthi vaha, Rasvaha</i>
Generalized pain, muscle pain, joint pain	<i>Vata</i>	<i>Asthi vaha, mamsavaha</i>
Menstrual disturbances, infertility, loss of libi-	<i>Vata</i>	<i>Artavavaha, Shukra vaha</i>

do		
Cold intolerance	<i>Kapha, Vata</i>	<i>Rasvaha</i>
Extreme somnolence, lethargy	<i>Kapha</i>	<i>Rasvaha</i>
Decrease cardiac output	<i>Vata, Kapha</i>	<i>Rasvaha, Raktvaha</i>
Decrease in sweat	<i>Vata</i>	<i>Medovaha</i>
Decreased vision, decreased hearing	<i>Vata</i>	<i>Rasvaha</i>
Muscles cramps/stiffness	<i>Vata</i>	<i>Asthivaha, Mamsavaha</i>
Non-pitting oedema, pericardial effusion, abdominal distension	<i>Kapha</i>	<i>Rasvaha</i>
Dull facial expression, depression, impaired memory, inability to concentrate	<i>Vata</i>	<i>Manovaha</i>
Osteoporosis	<i>Vata</i>	<i>Asthivaha, Majjavaha</i>

• **Samprapti of Hypothyroidism with Ayurvedic perspective⁽²⁸⁾:**



Samprapti Ghataka:

Dosha- kapha, vata, pitta.

Dushya- Ras and Meda predominantly.

Agni- Jatharagni, Dhatwagni.

Ama- Jatharagnimandyajanit, Dhatwagnimandyajanit.

Strotas- Rasvaha and Medovaha(all).

Strotodushti- sang, Vimargagamana.

Adhishthana- Sarvsharir, Gal Pradesh.

Udbhavsthan- Aamashaya.

Vyaktisthan- Sarvsharir.

Rogmarga- Bahya, Abhyantara.

DISCUSSION

There is no exact correlation of Hypothyroidism in Ayurveda, but its signs and symptoms can be described under Ayurvedic principles. Agni is the main factor for the causation of diseases including Hypothyroidism. Due to *Apathyakara Aahar Vihar*, Agni gets vitiated and causes the *Agnimandya* which results in the formation of *Apachita Aahara ras* called *Ama* and symptoms of *Ama* are very similar to Hypothyroidism. On the other hand, due to *kaphakara Aahara sevan*, there is starting the process of *kaphaprakopa* at *kaphasthan* i.e., *Galpradesh/urdhvjatrugat Pradesh*. *Kaphaprakopa* form the vitiation of *Ras dhatu* and *meda dhatu* predominantly. If the process of vitiation of *dhatu* gets continued, it leads to *dhatwagnimandya*, which results in the formation of vitiation of *Oja* which is the essence of all *dhatu*, and it causes *Ojovypat*. Symptoms of *Ojovypat* are hypothyroidism. Due to *Kaphaprakopa*, *Udana vayu* is obstructed by vitiated *kapha*. The throat and neck are circulatory areas of *udana vayu*. Hence, *udan vayu* is unable to perform its normal functions, known as *kaphavritta Udana* while is comparatively like hypothyroidism. In the pathogenesis of hypothyroidism, *Medovaha* and *Rasvaha strotas* are predominantly involved. *Tridosha* is the founding principle of the Ayurvedic system of medicine. They are responsible for maintaining health through the control of all physiological processes of the body and causing disease due to disturbance in their equilibrium state⁽⁴⁾. Agni is an im-

portant factor for digestion and metabolism in our body. If Agni of the person is vitiated, the shower metabolism in his body should be disturbed, resulting in sick health and disease. Hence, Agni is said to be the base of health⁽²⁹⁾. So, if finding the pathogenesis of hypothyroidism, *Agni dushti* is the primary cause and then it results in the *uttarottara dhatwagnimandya*. The disease *Galganda* is described in various Ayurveda Samhita, but *Galganda* occurs in the neck region only and hypothyroidism involves various symptoms of the body, that's why hypothyroidism cannot be compared with only *Galganda* disease. All endocrine disorders are *Aadhyatmik vyadhi* as per Ayurveda. *Adhyatmik vyadhi* manifesting in both body and mind level, which is comparable with hypothyroidism. There are 3 types of *Adhyatmik vyadhi* and their *hetus* i.e., *Adibalapravritha hetu*, *Janmabalapravritha hetu* and *Doshbalapravritha hetu* are perfectly matched with causative factors of hypothyroidism. *Ashtoninditiya purushas* can be considered functional disorders of endocrine glands. Out of which, symptoms of *Sthaulya* are nearly like hypothyroidism.

CONCLUSION

On the verge of completion of discussion, it can be concluded that allied complaints of hypothyroidism can be considered as the combined effect of *Agni dushti* specially *Medodhatwagnimandya*, derangement of *tridosha* and *dhatu*. Pathogenesis of *Ojovypat*, *Kaphavritta Udana* and *Ama* are considered while treating hypothyroidism. One should not be ashamed of one's inability to name a disease since all disorders cannot be given a standard name. There are innumerable disorders because the same vitiated *doshas* cause various disorders according to variation in aetiology and locations. Hence, one should initiate any treatment after acquiring complete knowledge of the inherent, nature of the disease, its pathogenesis, origin or site of lesions and locations of presentation, etiological factors, etc. Ayurveda line of management for that is *Hetupratyanik chikitsa*, *Vyadhipratyanik chikitsa* and *Satvavjay chikitsa* i.e., cure the *Agni dushti* and maintain the balance of *doshas* and *dhatu*,

Give assurance to patients. Also follow proper, healthy food and lifestyle according to *Dincharya* described in Ayurveda.

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