



Conceptual Study of Hypothyroidism w.s.r. to *Kriyasharira*

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Abstract

Hypothyroidism is the disorder of thyroid gland in which there is decreased secretion of thyroid hormones that is T3 [triiodothyronine]& T4 [tetraiodothyronine]. It is also called as “underactive thyroid disease”. Iodine deficiency is the main cause of hypothyroidism. It occurs due to autoimmune disease, which cause of destruction of the gland. In most of the patients it starts as a glandular inflammation called as ‘thyroiditis’ where the male and female ratio is 1:6. Decreased secretion of thyroid hormones is called as hypothyroidism. It is also called as underactive thyroid disease. It affects 3.8 – 4.6 % of the general population. The function of thyroid gland increases during pregnancy and lactation and decreases during the menopause. In *ayurvedic* texts, there is no direct reference of hypothyroidism ; but *Galaganda* and *Gandmala* frequently seen in relation to this. The signs & symptoms of hypothyroidism can be correlated as per *ayurvedic* view with the help of following three parameters such as -1] *Srotas /Sanstha* point of view 2] *Dhatuvruddhi- kshaya* point of view 3] *Jatharagni- Dhatwagni* point of view. *Acharya Charaka* has been explained *srotaspradoshaja vicara* in 28th chapter of Sutrastana. *Acharya Sushruta* also has been explained *srotaspradoshaja vicara* in 15th chapter of Sutrastana.

Keywords

Thyroid, Srotas, Dhatu, Agni, Hypothyroidism



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INTRODUCTION

Thyroid gland is one of the largest endocrine glands in the body. Thyroid is an endocrine gland situated at the root of neck on either side of trachea. Normally weight of thyroid gland is 20-40 gm in an adult, but it is larger in females as compared to males. Hence the disease of thyroid gland is more common in females as compared to males. As the age of females increases the structure and function of the thyroid gland also changes. The thyroid gland gets more activated after puberty. Thyroid gland secretes three hormones such as 1] T3 [Tri-iodothyronine] 2] T4 [Tetra-iodothyronine] 3] Calcitonin. Hypothyroidism leads to myxedema in adults and cretinism in children. Thyroid hormones regulate the metabolism of fats, carbohydrates, proteins, phosphorus and calcium. It has many symptoms related to many systems of the body. None of these manifestations are mentioned in the ancient texts. The thyroid gland controls how efficiently the body produces and utilizes energy and affects almost every tissue and organ in the body. The only exceptions are the brain, ovaries, testes, spleen and the thyroid gland itself.

In *ayurvedic* texts, there is no direct reference of hypothyroidism; but Galaganda and Gandmala are frequently

seen in relation to this, characterized by neck swelling that is known to be a disease of thyroid gland¹. In *Charaka Samhita* this disease is mentioned under 20 *Shleshma Vicaras*². In that *Charaka* has explained *Rasaja Vikaras* having similar clinical features of Hypothyroidism. *Shushruta* mentioned *Galaganda* while explaining disorders of 6th layer skin (*Rohini*)³. *Harita Samhita* described causes of *Galaganda* as *Krimi dosha* and *Dushtaambu*⁴.

In *Ayurveda*, Hypothyroidism is not directly mentioned but the signs & symptoms of hypothyroidism correlated with the help of following three parameters such as-

- 1] *Srotas (Sanstha)* point of view
- 2] *Dhatuvruddhi – kshaya* point of view.
- 3] *Jatharagni– Dhatwagni* point of view.

Physiological actions:

- Thyroid hormones increase the overall metabolic rate in the body and stimulate metabolic activities of most tissue.
- Thyroid hormones help in proper development during the foetal period and the first few months after birth.
- Thyroid hormones increased oxygen consumption and rates of hydrolysis.
- Thyroid hormones stimulate the growth in children.



- Thyroid hormones regulate the metabolism of fats, carbohydrates, proteins, phosphorus and calcium..

Aim– To study of the hypothyroidism according to *Ayurveda*.

Objectives –

- 1] To study the correlation of hypothyroidism with *Ayurveda* W.S.R. to *Srotodushti*, *Dhatu vruddhi-kshaya* & *Dhatvagnimandya* point of view.
- 2] To study of hypothyroidism as per modern concept.

Signs of hypothyroidism⁵-

- 1] Puffy face, hands & feet
- 2] Peripheral oedema
- 3] Diffuse alopecia
- 4] Cool, coarse, dry & flaky skin
- 5] Bradycardia
- 6] Delayed tendon reflex relaxation

Symptoms of hypothyroidism⁶ –

- 1] Tiredness
- 2] Lethargy
- 3] Dry skin
- 4] Feeling cold
- 5] Hair loss
- 6] Difficulty concentrating & poor memory
- 7] Constipation
- 8] Weight gain
- 9] Poor appetite
- 10] Hoarse voice
- 11] Impaired hearing
- 12] Dyspnoea
- 13] Menorrhagia [later oligomenorrhea or amenorrhoea].

Ayurvedic View –

A] *Srotas/ sanstha* point of view –

Among these sign & symptoms of hypothyroidism can be correlated with following *Strotaspradoshaj vyadhi*.

Table no. 1.1 - *Rasa pradoshajvyadhi*⁷

This table shows Lakshan of *Rasa pradoshaj vicara* correlated with signs and symptoms of hypothyroidism.

<i>Lakshan of Rasa pradoshaj vicara</i>	Hypothyroidism signs and symptoms
<i>Ashraddha</i>	
<i>Aruchi</i>	
<i>Aasyavairasya</i>	Poor appetite
<i>Arasadnyata</i>	
<i>Pandutva</i>	Pallor
<i>Palita</i>	graying hairs
<i>Agni nasha</i>	Reduced food intake



<i>Srotasavarodh</i>	Constipation
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Table no. 1.2 – Medapradoshajvyadhi⁸

Atisthullakshan mentioned by *Acharya Charak* in *ashtauninditiya* chapter can be correlated with hypothyroidism.

Lakshan of medapradoshaj vicara	Hypothyroidism signs and symptoms
<i>Java uparodh (utsahhani)</i>	Tiredness
<i>KruchhraVyavayata</i>	Loss of libido
<i>Daurbalya</i>	Weakness
<i>Swedabadha</i>	Excessive sweating

Table no. 1.3- Annavahsrotaspradoshajvyadhi⁹

This table shows *Lakshan of Anna pradoshaj vicara* correlated with signs and symptoms of hypothyroidism.

Lakshan of annavahsrotaspradoshaj vicara	Hypothyroidism signs and symptoms
<i>Anna anabhilasha</i>	Poor appetite
<i>Arochaka</i>	Poor appetite

Table no. 1.4- Purishavahasrotas¹⁰

This table shows *Lakshan of Purisha pradoshaj vicara* correlated with signs and symptoms of hypothyroidism.

Lakshan of purishapradoshaj vicara	Hypothyroidism signs and symptoms
<i>Alpa mala pravrutti</i>	Reduced peristalsis and food intake cause constipation
<i>Atigrathit mala pravrutti</i>	Reduced peristalsis and food intake cause constipation

Table no. 1.5- Shukravahasrotas¹¹

This table shows *Lakshan of Shukra pradoshaj vicara* correlated with signs and symptoms of hypothyroidism.

In males

Lakshan of shukrapradoshaj vicara	Hypothyroidism signs and symptoms
<i>Klaibya</i>	Loss of libido
<i>Aharshana</i>	Complete loss of libido
	Impotency

In females

Lakshan of artavpradoshaj vicara	Hypothyroidism signs and symptoms
<i>Klaibya</i>	Frigidity
<i>Naasyajayategarbha</i>	Miscarriage, Failure to conceive
<i>Garbhapatati</i>	Abortion
<i>Garbhasravati</i>	Miscarriages

B) Dhaturuddhi - kshaya point of view

According to this point of view some *vruddhi* and *kshaya lakshan* can be correlated with hypothyroidism. These are-

Table no. 2.1- Rasa vruddhi¹²

Acharya Vagbhata explains *rasavruddhi lakshan* similar with *kaphavruddhilakshan*.



Rasa vruddhilakshan	Hypothyroidism signs and symptoms
<i>Agnisada</i>	Poor appetite
<i>Alasya</i>	Lethargy
<i>Shaitya</i>	Cold intolerance
<i>Shwasa</i>	Dyspnoea

Table no. 2.2- Rasa kshaya¹³

Acharya Vagbhata explains *rasakshaya lakshan* similar with signs and symptoms of hypothyroidism.

Rasa kshaya lakshan	Hypothyroidism signs and symptoms
<i>Raukshya</i>	Dry skin
<i>Shrama</i>	Tiredness
<i>Shabdaasahishnuta</i>	Irritability

Table no. 2.3- Medavruddhi¹⁴

Acharya Vagbhata explains *Medavruddhi lakshan* similar with signs and symptoms of hypothyroidism.

Medavruddhilakshan	Hypothyroidism signs and symptoms
<i>Shrama</i>	Tiredness
<i>Alpeapicheshitishwasam</i>	Dyspnoea on exertion
<i>Sphiklambanam</i> (buttock)	
<i>Stan lambanam</i> (breasts)	Elevated cholesterol
<i>Udarlambanam</i> (abdomen)	
<i>Swedaatipravrutti</i>	Excessive sweating

Table no. 2.4- Asthikshaya¹⁵

Acharya Vagbhata explains *Asthikshaya lakshan* similar with signs and symptoms of hypothyroidism.

Asthikshayalakshan	Hypothyroidism signs and symptoms
<i>Keshapatan</i>	Hair loss
<i>Loma patan</i>	
<i>Nakha</i> (nails) <i>patan</i>	Brittle nails
<i>Pindikodveshtan</i>	Muscle weakness / cramps

Table no. 2.5- Majjavruddhi¹⁶

Acharya Vagbhata explains *Majjavruddhi lakshan* similar with signs and symptoms of hypothyroidism.

Majjavruddhilakshan	Hypothyroidism signs and symptoms
<i>SarvangaGaurav</i>	Weight gain
<i>Netragaurav</i>	Subcutaneous swelling in the eyelids
<i>Kriyahani</i>	Disability

Table no. 2.6- Shukrakshya¹⁷

Acharya Vagbhata explains *Shukrakshya lakshan* similar with signs and symptoms of hypothyroidism.

Shukrakshayalakshan	Hypothyroidism signs and symptoms
<i>Klaibya</i>	Loss of libido
<i>Pandutva</i>	Pallor



<i>Shrama</i>	Tiredness
<i>Kshinashukra</i>	Oligospermia

Table no 2.7- Artavakshaya¹⁸

Acharya Sushruta explains *Artavakshaya lakshan* similar with signs and symptoms of hypothyroidism.

Artavakshayalakshan	Hypothyroidism signs and symptoms
<i>Artavaadarshan</i>	Amenorrhoea
<i>Artavaalpata</i>	Oligomenorrhoea

Table no 2.8- Artavavruddhi¹⁹

Acharya Sushruta explains *Artavavruddhi lakshan* similar with signs and symptoms of hypothyroidism.

Artavavruddhilakshan	Hypothyroidism signs and symptoms
<i>Artavaatipruvrutti</i>	Metrorrhagia
<i>Artavaalpata</i>	Oligo menorrhoea

C) *Jatharagni- Dhatvagni* point of view

As per *Acharya Charak*, as similar with *atisthul as amprapti*, there is *jatharagni pradipti* and *dhatwagnimandya* in hypothyroidism.

In hypothyroidism, there is-

- *Jatharagnidipti* (increase)
- *Dhatwagni- mandya* (decrease)
- *Rasa dhatwagnimandya*
- *Medodhatwagnimandya*

As *Acharya Sushrut* stated- *Rasa dhatu* is basically responsible for all types of *sthaulya* (*santarpanjanyavyadhi*) as well as *karshya* (*apatarpanjanyavyadhi*)²⁰.

• As *acharyacharak* said in context of *sthaulyasamprapti*, there is *jatharagnisandhukshan*.²¹

• In context of *ashtadosha* of *atisthula* there is *medodhatwagnimandya*²².

DISCUSSION

Hypothyroidism is a condition in which thyroid gland does not make enough thyroid hormones, which decreases the basal metabolic rate. It is more common in women specially in pregnant women and patients with type 1 DM and autoimmune

disease. Primary hypothyroidism mainly belong to Hashimoto's Thyroiditis. Dysfunction of pituitary gland and hypothalamus is main cause of secondary hypothyroidism. If hypothyroidism remains untreated, the signs and symptoms become severe such swelling of thyroid gland (goiter), memory loss, depression,



joint stiffness and impaired fertility. From *Ayurvedic* point of view in the condition of hypothyroidism there is imbalance of *kapha dosha*, vitiated *Avalambaka kapha* gets accumulated in *Annavaha Srotas* and then relocate into the *Rasa dhatu* of thyroid gland which disturbs functions of *Rasavaha Srotas*. If it remains untreated many *dhatu*s can also be affected due to hypothyroidism. So hypothyroidism presents signs and symptoms seen in *Srotodushti, Dhatusvikruti and Agnivikruti*.

CONCLUSION

From above discussion it is concluded that, Hypothyroidism is a disorder of Thyroid gland in which all systems are involved and hence multiple organs are involved. So it is practically not possible to correlate it as per *Ayurveda* in one *Srotas* or *sanstha*. As per *Ayurveda* particularly *Sharir Kriyatmak* point of view, we had made three hypothetical parameters for easy correlation with *Ayurveda*.

Srotas /Sanstha point of view –According to this point of view, It is correlated with *rasavaha, medovah, annavah, purishavaha, sukrah & artavavahpradoshajvyadhi* .

Other *Srotas* can be also correlated but due to lack of time it is not possible to elaborate.

Dhatuvruddhi–kshaya point of view –

According to this, it can be correlated with – *rasa vruddhi, meda vruddhi, asthi kshaya, majjavruddhi & kshaya, sukra kshaya, artavvruddhi & kshaya*.

Dhatwagni point of view- In this

Jatharagni – pradipti, Dhatwagni – mandya is seen in hypothyroidism particularly *Rasdhatuagnimandya & Medodhatwagnimandya* which correlates the signs and symptoms of hypothyroidism.



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