

## Ayurvedic Management Of Hypothyroidism

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### Abstract:-

The endocrine system is a series of glands that produce and secrete hormones that the body uses for a wide range of functions. The synthesis and transportation of thyroid hormones plays a vital role in the normal physiology and functioning of the body. Hypothyroidism is an endocrine disorder. Hypothalamic-pituitary-thyroid axis (HPT axis) with its negative feedback mechanism helps in maintaining normal hormone levels. The level of TSH is the primary indicator of hypothyroidism and a thorough evaluation is needed to know the pathology behind before starting hormone supplementation therapy. While analyzing the signs and symptoms of hypothyroidism, involvement of all *Strotas* should be noticed. In hypothyroidism *Kapha* and *Vata doshas* are aggravated and *pitta Dosh* is reduced from normal. Some physicians also consider it as a *Sthanik vyadhi* (local disease) under *Galaganda roga*. It's *Lakshanas* (symptoms due to improper functioning) are seen in whole body.

Direct description of hypothyroidism is not being mentioned in ayurvedic texts. But the line of treatment has been very well described under *dhatwagni chikitsa*. The diseases which are not mentioned directly in ayurvedic texts are considered under *AnuktaVyadhis* (unsaid disease) .According to *Charak Samhita*, hypothyroidism is categorized under *AnuktaVyadhis* where *vata* and *kapha doshas* are mainly involved.

**Key words:-** Hypothyroidism, *Galaganda Roga*, *Anukta Vyadhis*

### Introduction:-

Thyroid gland is a tiny, butterfly-shaped gland located right below Adam's apple at the base of the front of the neck. The thyroid gland is an endocrine gland that is found in the lower front and sides of the neck. The thyroid gland generates hormones that control heart, muscular, and digestive function, as well as brain development and maintenance.

Hypothyroidism, hyperthyroidism, goitre, Hashimoto's thyroiditis and thyroid cancer are all common thyroid problems. Hypothyroidism is the most frequent of these disorders.

In India, one out of every 10 people is affected by the disease. The thyroid gland is made up of several spherical follicular cells. Tri-iodothyronin (T3) and Tetra iodothyronin (Thyroxine) (T4) are secreted by follicular cells. Parafollicular cells, which secrete calcitonin, are found between follicular cells. T3 and T4 are iodine-containing tyrosine derivatives.[1]

The thyroid hormones, tri iodothyronine and Tetra iodothyroxine, have a huge impact on human health, affecting every part of our metabolism. Hypothyroidism is a disorder in which the thyroid gland produces insufficient thyroid hormone, causing problems with heart rate, body temperature and other elements of metabolism. It is more common in older women.

Hypothyroidism is not directly mentioned in Samhitas. Many ailments are not directly mentioned in ayurvedic scriptures, but their treatment is adequately documented in them. "It is not required for *Vaidya* to know the name of the disease before commencing the treatment," according to madhavnidaan, "but *Vaidya* should cure the patient on the basis of examination of *Prakruti* (physical and mental constitution), *Vikruti* (pathology) , *Saartaa* (elemental tissues and mind) , *Sahanan* (compactness of the body ) , *Pramaan* (quantity) , *Saatmya* (compatible) , *Satva* (mental status) , *Aahaar Shakti* (digestive power), *Vyaayaam Shakti* (capacity of doing physical work) , *Vaya* (age) *Adhithaan* (location), *Bheda*, (types) and *Hetu* (cause), *Shata-kriya-kala* (the stage of a sickness ) should also be elicited to determine the curability of the disease and thus accordingly patient should be treated.[2]

According to Ayurveda, impairment of functions of *Agni* is the prime cause of hypothyroidism. Hypofunctioning of the *Jatharagni* (digestive power) affects the *Dhatavagni* (digestive power of tissue) and *Medagni*, (digestive power of adipose tissue) resulting in a pathological cascade. Ayurvedic medicines and *Panchakrma* (five purification procedures) treatments, such as *Vamana* (induced vomiting) and *Virechana*, (induced purgation) are employed because they are relatively effective and have little negative effects.[3]

#### Causes:-

Iodine deficit, Radiation therapy, Congenital disease, Pituitary condition, Hypothalamus disorder, Pregnancy also some of the causes of hypothyroidism. *Amlapadarth* ,(sour substance) *Krutanna* (junk food), drinking water on an empty stomach, *ratrijagarna* (sleeping late at night) and sitting for lengthy periods of time are also causes of hypothyroidism .

Hypothyroidism is caused by an autoimmune disorder, according to modern research. Hyperthyroidism therapy over-response, Thyroid surgery is a procedure to remove the thyroid gland. [4]

#### Samprapti / pathogenesis:-

Samprapti ghatak

- *Dosha* (physiological humors) – *Kapha*, *Vata*
- *Dushya* – *Rasa*(plasma) & *Meda*(adipose tissue)
- *Agni* (digestive power)– *Jatharagni*, *Dhatvagni* , *Medaagni*
- *Ama* – *Jatharagnimandhyajanita*, *Dhatvagnimandhyajanita*.
- *Srotas* ( channels)–*Rasavahsrotas*(channel carrying plasma and lymphatic tissue) and *Medovahasrotas* (channels carrying fat tissue)
- *Srotodushtiprakara*(channel deformity type) – *Sanga*
- *Udbhavastana* (emerging place)– *Amasaya*(stomach)
- *Rogamarga*(pathway of disease) – *Bahya*(external)

Due to aggravating factors *Vata* and *Kapha dosha* increases and as a result *Aam* (undigested material) develops, causing *Agnimadya* (hypodigestive power) and constipation. *Hetu* initially converts *Aahar-rasa* (digestive juice) into *Aam*, resulting in *Vikrut rasa dhatu* (deformed plasma tissue). All of this adds to the *Vikrutdhatu-uttpatti* (deformed tissue production) effect.

Stress is caused by increased *Tejas* (overwork), which burns *Ojas* (immunity and vitality), resulting in autoimmune diseases.

Hypothyroidism is caused by the thyroid gland's inability to produce adequate hormones, according to modern research. [5]

### **Symptoms:-**

The severity of hormone insufficiency affects the signs and symptoms of hypothyroidism. At first, symptoms such as weariness and weight gain are scarcely evident, but they might progress to more serious issues.

Increased sensitivity to cold is one of the signs and symptoms. Skin that is dry, gaining weight, Face puffy, Hoarseness, Thyroid gland enlargement, Hair thinning, Muscle wasting, Menstrual cycles that are heavier than average or irregular. Heart rate slowed, A high level of cholesterol in the blood, gaining weight, Depression, Muscle pains, stiffness, and fatigue Joint pain and edoema, Bloating in the stomach, Tongue swells.[6]

Initially, newborns born without a thyroid gland or with a malfunctioning thyroid gland may experience a few symptoms. Skin and eye whites turn yellow (jaundice), The tongue is large and projecting. Crying in a hoarse voice, Excessive sleeping, an umbilical hernia.

Children generally have the same symptoms as adults, but they may also have poor growth, resulting in short stature. Permanent teeth formation is delayed. Puberty is postponed for a variety of reasons. Lack of mental growth.[7]

### **Treatment:-**

To prevent disease, *Ayurvedic* medicine employs a comprehensive approach that includes exercise, food and lifestyle changes.

The key principles that must be followed are *Strotosodhana* (cleansing the channels), *Agnideepan* (increasing digestive power) and *Vatanuloman*. In the short term, *Vamana* and *Virechana* have shown some good results. Though *Vamana* has greater results than *Virechana*, *Vamana* is often the preferred treatment. Patients who are in poor health are advised to undergo *Samshamanachikitsa* (pacifying treatment). [8]

Many herbs and traditional unprocessed foods can be beneficial for hypothyroidism.

- *Ashwagandha* (*Withania somnifera*) is an adaptogen plant that aids stress management. It can be found growing wild in Northern Africa and India. It has been shown in tests to help treat hypothyroidism by reducing stress hormone levels.
- In *Charakdatta*, *Punarnavadi kashayam* is stated for the treatment of *Shoth* (oedema), which is one of the most common symptoms of hypothyroidism. Along with *Guggulu*, it contains *Punarnava*, *Devdaru*, and *Shunthi*.

• In *Yogratnakar*, *Triphalyadi guggulu* is recommended for the treatment of *Gandamala*. *Guggulu* is combined with *Trikatu*, *Triphala*, and *Kanchanara* in this formula. *Deepan-pachana* dravyas are present in the medication.

Dosage -*Triphalyaguggulu* 2 wati twice daily with lukewarm water after meals is the recommended dosage.

30ml *Punarnavadi* decoction before meals twice a day is also recommended. [9]

- *Laghumalinivasantvati*: It is *Rasayana* and mainly works on *Rasadhatu and raktadhatu* (plasma-blood tissues)
- *Arogyavardhini vati*: *Dhatvagni Vardhan* (increases digestive power of tissues), *Malashodhak* (facilitates the expulsion of waste product), *Pakwaashay dushti naashak* (cleans the bowels)[10]
- *Vangabhasma*: *Shleshmaghna* (alleviates kapha dosha), *Balya* (strength promoter), *Prushti* (increases muscular tissue), *Vrushya* (Aphrodisiac) and *Paachan* (digestive).
- *Abhrakbhasma*: *Vatakaphaghna*, *Hrudya*, *Balya*, *Dhatuposhak*, *Deepana*, *Paachan*(digestive), *Vrushya*.
- *Kanchanaarguggul*: *Kaphaghna* (decreases kapha dosha),
- *Chandraprabhavati*: *Tridoshaghna*, *Balya*(strength), *Vrushya*(Aphrodisiac),*Rasayana*, *Dhatuposhak* (nutritious to tissues), *Agnimandyanashak*(appetite increaser),*Hrudya* (good for heart functioning).
- *Gandharvaharitaki*: *Anuloman*, *shoola naashak*.(pain reliever) [11]

#### Single dravyas:-

*Pippali* (Piper longum), *Bhallataka* (Semicarpus anacardium), *Punarnava* (Boerhaviadiffusa), *Guduchi*(*Tinospora cordifolia*), *Guggulu* (*Commiphora wightii*), *Vidanga* (*Embelia ribes*) are all calming herbs that have *Agni deepan*(appetite increaser),*Medohara*(reduces adipose tissue), and *Avarana-nashaka* properties.

In the *Punarnavadi* decoctions listed in *Charakdatta*, *Punarnava*, *Devdaru* (*Cedrus deodara*) and *Shunthi* (*Zingiber officinale*) are used as adjuvants, along with *Guggulu*.

Sunthi has digestive, pain-relieving, and *Vata-kapha* pacifying characteristics, which helps to prevent *Aam*(undigested food)development. [12]

#### Pathya:-

- **Aharaj pathya :-**

*Ruksha Katu Dravya* (dry and bitter substance) *Deepana dravya*(substances which increases appetite) and drugs like *Guggulu* and *Shilajatu* are *pathya*. *Purana Ghritapana*, *Jeerna Lohita shali*, *Yava*,(barley)*Mudga*,(green gram),*Patola* (pointed gourd),*Rakta shigru*(drumstick),*Kathillaka* (punarnava),*Salincasaka*, *Vetagra*, *rohit matsya* (rohu fish), *saindhaiva* salt, cow's *ghee* (butter) and milk, *raktashali* (red rice). [13]

- **Viharaj pathya :-**

It specifies the physical activities as well as the daily routine to be followed. *Dincharya* (daily regimen), *Rutucharya* (seasonal regimen), *Nidra* (sleep) *Dhaarneeya vega*, (which should be controlled) and *AdhaarneeyaVega* (which should not be controlled) are all *Ayurvedic* scriptures that,

when followed, help to improve personal and social cleanliness, ultimately increasing the quality of life and preserving a healthy and disease-free life.[14]

#### **Yogasanas:-**

The Yogasanas like *Halasanam* (plough pose), *Paschimothanasanam* (plough pose), *Matysaasanam* (fish pose), *Sarvangasanam* (plough pose), *Pavanamukta sanam* (seated forward bend pose), *Sirshasana* (head low pose), *Suptavajrasana*, *Surya namaskaram* (sun salutations), *Simhagarjanasanam* (loin pose), and *Kandarasanam* are found beneficial.

The breathing exercises like *Pranayamam-Sheetali*, *Seethkara*, *Sadanda*, *Bastrika*, *Anuloma viloma pranayam* and *Ujjayi pranayam swasa* aids the healthy functioning of thyroid gland.[15]

#### **Maanasika pathya:-**

*Manasika pathya* means maintaining a healthy state of mind.

Even though a person is physically well, he cannot be entirely healthy until his mental health is in good shape. To minimize psychological disturbances and sustain *Indriyabhigraha* (control over sense organs), *Acharyas* have defined various concepts such as *Achararasayana* (following ethics and values), *Sadvritta*, *Sadachara*, and meditation practice (sensory and motor perceptions and control) and *Svasyanigraha* (self control) restrain from *Chinta* (worrying), *Vichara* (thinking), *Krodha* (anger), *Shoka* (grief) etc. Following these helps to lead a stress free life which is a major cause for all kinds of morbidities especially in hypothyroidism.[16]

#### **Apathya:-**

##### **Aharaj apathya :-**

*Viruddha ahar* (incompatible diet) is main cause of hypothyroidism. It include *KshiraVikruti* (milk products), *IkshuVikruti* (products from sugar cane), all types of *Mamsa ahar* (meat), *Anupa Mamsa*, *Pishta annam*, *Madhura* (sweet), *Amla Rasa* (sour) and *Guru Ab hishyandakari Dravya* (substance which are causes obstructions in channels). *Yavaka* (*Barley*), drinking river water in rainy season, mustard, *Cilicima* fish, ghee and milk of sheep, *Kusumbha taila*, *Kumbhira*, *Cataka*, *Nikucha* (artocarpus), *alba*, *Phanita*. [17]

##### **Viharaj apathya :**

As per *Ritu*, *Viharaja Apathyas* such *Diwaswapna* (day sleeping) *Ratri jaagarana* (night awakening), *Vega dharan* (suppression of natural urge) and *Pragnaparadaha* (self-made faults) are specifically listed as causative factors for flawed and unhealthy lifestyles leading thyroid gland dysfunctions.

#### **Risk factors:-**

Although anyone can develop hypothyroidism, but he/she is at increased risk if he/she :

- Is a women
- Is older than sixty years
- Has family history of thyroid disease
- Has an autoimmune disease , such as type 1 diabetes or celiac disease

- Has been treated with radioactive iodine or antithyroid medications
- Has received radiation to neck or upper chest
- Had thyroid surgery
- Has been pregnant or delivered a baby within the past six months
- Bipolar disorder
- Suffering from Down syndrome
- Suffering from Turner syndrome [18]

#### **Complications:-**

Hypothyroidism, if left untreated, can cause a variety of health issues, including:

- **Goiter:** Over stimulating the thyroid gland to generate more hormones can cause the gland to enlarge. Goiter is generally uncomfortable, obstructing eating and breathing.
- **Heart problems:** Hypothyroidism is linked to a higher risk of heart disease and heart failure, owing to high levels of low-density lipoprotein [LDL] cholesterol.
- **Problems with mental health.** Hypothyroidism can cause depression, which can grow severe over time. Hypothyroidism can also cause mental sluggishness.
- **Peripheral neuropathy** is a condition that affects the peripheral nerves.

Peripheral nerve injury might result from unmanaged hypothyroidism over a long time.

The nerves that transmit information from your brain and spinal cord to the rest of your body are known as axons. [19]

- **Myxedema**

Long-term undetected hypothyroidism causes this rare, life-threatening illness. Its symptoms and signs include extreme cold intolerance, severe lethargy and unconsciousness. Sedatives, illness, or other physical stress can cause a myxedema coma.

- **Infertility**

Thyroid hormone deficiency can affect fertility by interfering with ovulation.

- **Malformations at birth**

When compared to babies born to healthy mothers, newborns born to women with untreated thyroid disorders may have a higher chance of birth abnormalities. [20]

#### **Conclusion:-**

Lifestyle illnesses such as hypothyroidism and diabetes are on the rise and are posing a severe threat to humanity. Ayurveda has long been renowned for effectively treating *Anukta vyadhis* as well as the diseases described in ayurvedic writings. Although any illness condition akin to hypothyroidism is not addressed in Ayurveda, it is shown to have a strong link with *Agnimandya* (decreased digestive power) and *Aama* (undigested food).

Because *Dhatvagni* vitiation it is difficult to reverse once it has occurred, *Shaman* therapy should be used for an extended period of time to cure *Aama* at the *Dhatu* level. Purification and palliative therapy were proven to be an effective treatment for hypothyroidism. Adopting a disciplined lifestyle and eating a healthy food may operate as an adjuvant in reducing side effects and working synergistically with treatments to cure the condition and improve prognosis. Hypothyroidism can be treated using a holistic Ayurvedic approach.

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