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# A Review : Hypothyrodism a life style disorder and Ayurveda

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Abstract: Hypothyroidism is a common disorder with a prevalence that varies according to local dietary iodine availability, gender and age. The symptoms of hypothyroidism are generally nonspecific, with significant connection with other disorders and with the consequences for the health of advancing age. A thyroid function test is required for a firm clinical diagnosis. Lack of knowledge and understanding of hypothyroidism, and a tendency for many people to attribute the symptoms of hypothyroidism to other causes Hypothyroidism affects up to 5% of the general population, with a further estimated 5% being undiagnosed. Over 99% of affected patients suffer from primary hypothyroidism. Worldwide, environmental iodine deficiency is the most common cause of all thyroid disorders, including hypothyroidism, now a days life style changes food habits and materialistic life style is main cause for such disorders so it is need to rule out the medicine for it.

IndexTerms – thyroid, hypothyroidism, life style disorder.

### Introduction

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. It acts by producing thyroid hormones, the principal ones being triiodothyronine  $(T_i)$  and thyroxine  $(T_i)$ . To any  $(T_i)$  and  $(T_i)$  are synthesized from both iodine and tyrosine. The thyroid also produces calcitonin, which plays a role in calcium homeostasis. Hypothyroidism is a condition in which the thyroid gland does not produce a sufficient amount of the thyroid hormones thyroxine  $(T_i)$  and triiodothyronine  $(T_i)$ . It is estimated to affect between 3.8-4.6% of the general population. Globally, iodine deficiency is the most common cause of hypothyroidism. In areas where dietary iodine is sufficient, hypothyroidism is most commonly caused by Hashimoto's thyroiditis. It can also be caused by post-partum thyroid inflammation, certain medications, congenital abnormalities or stress Stress and Hypothyroidism

In fact, stress is known to be a significant contributor to thyroid dysfunction. Whenever you experience stress, your adrenal glands produce cortisol. This is an evolutionary protective mechanism that originally developed as a response to physical threats. It creates the "fight or flight" response and once the physical threat is gone, cortisol levels go back to their normal levels. Its primary functions are to increase blood sugar through gluconeogenesis in the liver, increase blood sugar through the breakdown of glycogen to glucose raise the blood pressure suppress inflammation as well as suppress the immune system Elevated cortisol is intended for short term stressful events. It is the duration and accumulation of stress and not the type of stress that causes high levels of cortisol. Every cell in the body has receptors for both thyroid hormone and cortisol. Cortisol acts synergistically with thyroid hormone at the epigenetic level. Normal levels of cortisol need to be present bound to its receptors for optimal function of not only the thyroid gland itself but for every tissue in the body. Too much cortisol causes the tissues to no longer respond to the thyroid hormone signal. This is known as thyroid resistance, meaning that thyroid hormone levels can be normal, but tissues fail to respond as efficiently to the thyroid signal. It can cause TSH levels to be elevated while T, and T, are within the normal range. Excess cortisol has an adverse direct affect on thyroid function. It inhibits deiodinase (the enzyme responsible for the conversion of T<sub>1</sub> into T, in the body tissues) and also leads to an increased risk of Hashimotos thyroiditis (autoimmune disease). The latter effect is the result of cortisol causing an abnormal the ratio of T, and T lymphocytes. A shift toward T, may be associated with Hashimotos.

Symptoms: The symptoms of hypothyroidism are quite variable, depending on the severity of the hormone deficiency and of course one's constitutional make-up. But in most cases, symptoms tend to develop slowly, often over a number of years. They typically include any or all of the following: Chronic fatigue, weight gain, depression, low bloodpressure, sensitivity to heat and cold, paresthesias, bradycardia, elevated LDL-cholesterol, reactive hypoglycemia, hoarseness, constipation, headache, muscle weakness, joint stiffness, swollen face, menorrhagia, cramps, memory loss, visual problems, infertility and hair loss.

Ayurvedic Perspective on Hypothyroidism: Galaganda:- Sushrutacharya stated that rivers flowing towards east might give rise to the occurrence of galaganda. Bhela states that galaganda is more common in prachya desa (eastern part) of the country. Harita samhitakara described the role of dustambu (contaminated water) in the precipitation of galaganda. Kashyapa samhita says that any part of the country which is cold, damp, with densely grown long trees, water stagnation and heavy rains may promote the development of galaganda. Galaganda can be associated with goiter or some type of neck tumor, where thyroid functions may or may not be compromised. But hypothyroidism is not just a localized disease. It has many symptoms related to many systems of the body. None of these manifestations are mentioned in the ancient texts. Thus it is probably inaccurate to draw a parallel between hypothyroidism and galaganda.

### Ayurvedic Treatment;-

According to Ayurvedic therapeutic science, a decrease or increase in the normal working of thyroid gland results in hypothyroidism or hyperthyroidism, respectively. Like all nija rogas, the root cause of hypothyroidism is a disequilibrium of the doshas. There is in general vitiation in the Kapha dosha and Pitta dosha. Ayurveda teaches that thyroid is affected by diet and lifestyle indiscipline which further promote the dosha imbalance.

Diseases are classified in Ayurveda as either Sukhasadhya, Kruchrasadhya, Yapya or Asadhya. Sukhasadhya diseases, can be easily cured. Kruchrasadhya diseases are difficult to cure. Yapya diseases recur when the treatment is stopped and Asadhya signifies those diseases that are incurable. Ayurveda considers hypothyroidism as a yapya disease.

Ayurveda therapy for thyroid disease aims to correct the dosha imbalance and hence the flawed function of the thyroid gland. Therapy includes the recommendation of herbal medicines principally for dosha balance and to some extent specifically to promote thyroid function, dietary guidance, and lifestyle recommendations. Medicines that can be utilized in hypothyroid

Single medicines include: Kanchanara leaves, Guggulu oleoresin, Ashwagandha root, Brahmi leaves, Punarnava leaves.

Compound medicines include Kanchanar Guggulu, Punarnava mandoor, Ashwagandharishta, Amritadya taila and Mahayogaraj guggulu

All medicines for hypothyroidism need to be taken under the supervision of an experienced Vaidya. Also, as these thyroid medicines help in regulating metabolism as well as detoxifying the body, you may need to increase your water intake and include a bland diet along with taking medicines meant for thyroid balancing.

## **Hypothyroid Diet and Lifestyle**

- Assuming there is no food intolerance or lactase deficiency one can consume milk and milk products. Also rice, barley, green grams, Bengalgram, sugarcane juice, cucumber and fruits and vegetables which are pittakapha hara ahara (reduce both pitta and kapha)
  - · Restrict the salty and sour tastes in your diet.
- Iodine is found in shellfish, seaweed, deep-water fish and certain vegetables, including: garlic, spinach, mustard, turnip greens, lima beans, sesame seeds, and soybeans.
- Pranayama techniques of Jalandhar bhanda and Ujjayi Pranayaam. The most effective Pranayama for thyroid problems is Ujjayi. It acts on the throat area and its relaxing and stimulating effects are most probably due to stimulation of ancient reflex pathways within the throat area, which are controlled by the brainstem and hypothalamus. Nadi shodhana pranayama is useful in re-balancing metabolism.
- Sarvangasna (shoulder stand) is the most suitable and effective asana for the thyroid gland. An enormous pressure is placed on the gland by this powerful posture. As the thyroid has one of the largest blood supplies of any body organ, this pressure has dramatic effects on its function, improving circulation and squeezing out stagnant secretions. After sarvangasana, we should perform matsyasana, and from sarvangasana we can practice halasana. All these practices positively result in better health of the thyroid gland. At the same time, all these practices should be avoided in severe thyroitoxicosis, physical debility or a goitre that is enlarged very much, where medical therapy is obviously the first line of treatment to be given. However, adding iodine once again to the diet is the first obvious step. Other effective asanas include Surya Namskara, Pavamuktasana with emphasis on the head and neck exercises, yoga mudra, Suptavajrasana and allbackward bending asanas.
- These asanas include: Yogamudrasana, Yoganidrasana, Halasana, Sarvangasana Suryanamaskar, Suptavajrasana, Matasyasasna

#### Discussion:-

Unlike modern medicine Ayurvedic medicine takes time to pormalize the value of TSH. Since there is no direct reference of Hypothyroidism in the Ayurvedic text, but Galgand or Gandmala is found. Galgand is Vata kaphaj disorder and the drugs used, act on Vata and Kapha prominently. Kanchnar guggulu is considered as drug of choice for all kinds of Granthis, hence the drug can be chosen for Galagand like conditions. Drugs like Varunadi kashaya is used in Vata kaphaja disorder and it is also very well indicated in Gandmala. we also suggest the diet and life style changes.

Drugs like Aragwadh or trivrut also should be given the purpose of Nitya virechana because Galgand is Vata kaphaja disorder but with Pitta dusti, so there may be hypo secretion of hormones: pitta to be considered as hormone and perhaps Pitta needs to be regularize.

Conclusion:- As we know Hypothyroidism is the second most prevalent disorder and should be ruled out its cause and follow the life style accordingly. It can be very well managed with Ayurvedic medicines, depending upon the symptoms. By taking Ayurvedic medicines one cannot only decrease the level of TSH, but also enhance, stimulate the normal functioning of gland. Hypothyroidism is the topic of research and more studies should be conducted to reach, and to make a proper protocol for the disease modality so that Ayurveda will also help in better way to mankind.

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