"MANAGEMENT OF HYPOTHYROIDISM IN ACCORDANCE WITH DOSHIK CONCEPT- A CRITICAL ANALYSIS"

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ABSTRACT

Hypothyroidism is defined as a condition which is caused due to reduced production of thyroid hormone[1]. It is of two types in which, Primary hypothyroidism is due to disease of thyroid itself, which accounts for approximately 99% of the cases. Secondary or Central hypothyroidism[2] is a second variety with < 1% being due to TSH deficiency. In India and at Worldwide the prevalence and incidence of hypothyroidism is increasing and at present 42 million people in India have thyroid disorders, affecting one in ten adults[3]. *Ayurveda* a life science with holistic approach plays a vital role in this scenario. The Clinical features of hypothyroidism includes wide range of symptoms pertaining to General appearance, Respiratory system, Cardiovascular system, Digestive system, Neuromuscular system, Integumentary system and Reproductive system which overall impacts the impairment of *Doshik* aspects in the body especially *Vata* and *Kapha Dosha*. Thus in this study an humble attempt is made considering *Shodanadigana Sangraha Adhyaya* of *Ashtanga Hrudaya Sutra Sthana* as a base to critically evaluate the management of hypothyroidism in accordance with *Dosha*.

Keywords: Thyroid hormone, TSH deficiency, Hypothyroidism, *Ashtanga Hrudaya, Shodanadigana Sangraha, Doshik* aspects

INTRODUCTION

Hypothyroidism is a condition in which thyroid gland plays a vital role. The thyroid gland produces two related hormones Triiodothyronine (T3) and Thyroxin (T4)[4]. Acting through nuclear receptors, these hormones play a vital role in cell differentiation during development and help maintain metabolic homeostasis and thermo genic in the adult.[4] Disorders of the thyroid gland result primarily from autoimmune processes that either stimulate the overproduction of thyroid hormones (*thyrotoxicosis*) or cause **hormone deficiency (*hypothyroidism*)** and glandular destruction[4]. Iodine deficiency remains the most common

cause of hypothyroidism worldwide[5]. Also in areas of iodine sufficiency/deficiency, autoimmune disease (Hashimoto's thyroiditis) and iatrogenic causes are most common[5].

Aetiology[6]

Primary causes: [6]

- Congenital hypothyroidism: absent or ectopic thyroid gland, dyshormonogenesis, TSH-R mutation[6]
- Iodine deficiency[6]
- Autoimmune hypothyroidism: Hashimoto's thyroiditis, atrophic thyroiditis[6]
- Drugs: iodine excess (including iodine-containing contrast media and amiodarone), lithium, antithyroid drugs, *p*-aminosalicyclic acid, interferon-_ and other cytokines, aminoglutethimide[6]
- Overexpression of type 3 deoiodinase in infantile hemangioma[6]
- Transient: Silent thyroiditis, including postpartum thyroiditis Subacute thyroiditis, Withdrawal of thyroxin treatment in individuals with an intact thyroid, After 131I treatment or subtotal thyroidectomy for Graves' disease[6]
- Infiltrative disorders: amyloidosis, sarcoidosis, hemochromatosis, scleroderma, cystinosis, Riedel's thyroiditis[6]
- Iatrogenic: 131I treatment, subtotal or total thyroidectomy, external irradiation of neck for Lymphoma or cancer[6]

Secondary Causes: [6]

- Isolated TSH deficiency or inactivity[6]
- Hypopituitarism: trauma, tumours, infiltrative disorders, pituitary surgery or irradiation, genetic forms of combined pituitary hormone deficiencies, Sheehan's Syndrome[6]
- Hypothalamic disease: tumours, trauma, infiltrative disorders, idiopathic[6]
- Bexarotene treatment[6]

Clinical features[7]

Symptoms: Weakness, Tiredness, Hoarse voice, Dry skin, Feeling cold, Hair loss, Constipation, Difficulty in concentrating and poor memory, Weight gain with poor appetite,

Dyspnoea, Paraesthesia, Impaired hearing, Menorrhagia (later oligomenorrhea or amenorrhea)[7]

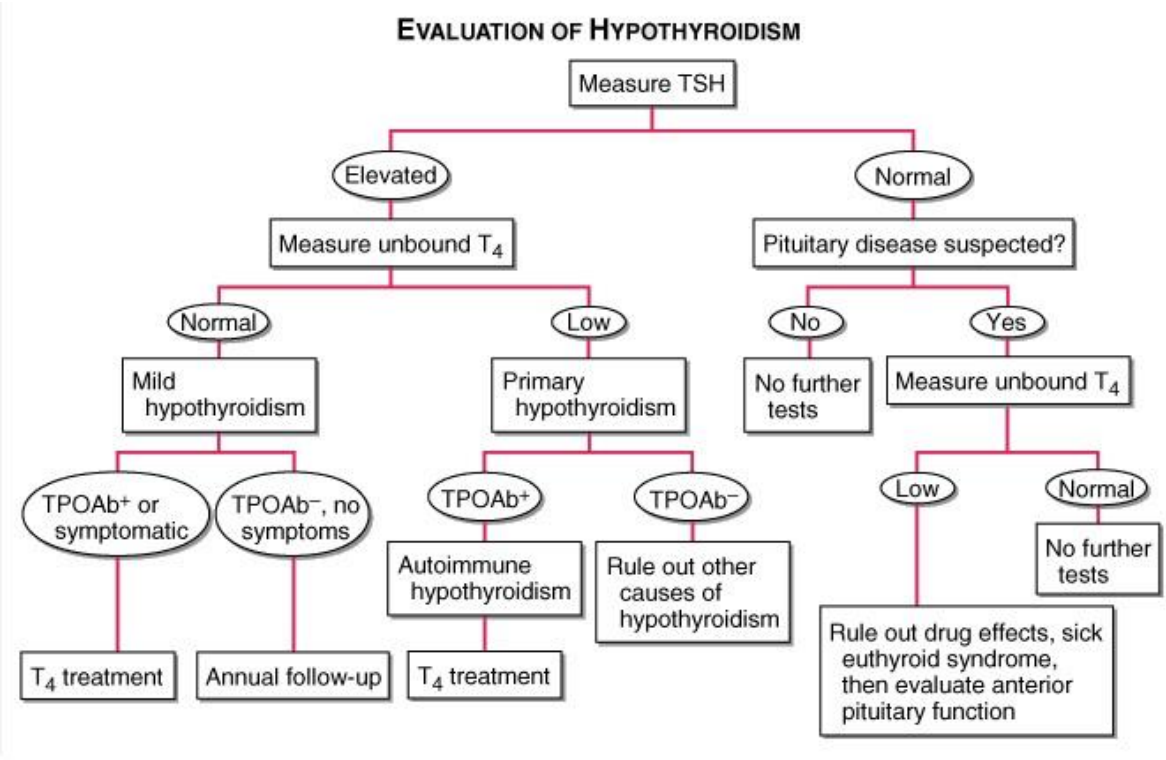
Signs: Puffy face, swelling in hands and feet (myxoedema), Peripheral oedema, Dry coarse skin, cool peripheral extremities, diffuse alopecia, , Delayed tendon reflex relaxation, Carpal tunnel syndrome, Serous cavity effusions, Bradycardia.[7]

Prevalence and Incidence[8,9]:

In India at present, it is estimated that prevalence of Primary Hypothyroidism is 3.9% and that of Secondary Hypothyroidism is to be 9.4%.[8]

The overall Incidence of Hypothyroidism is 13.5/100000 per year based on a population based study.[9]

Treatment: [10]



***Ayurvedic* Interpretation:**

The signs and symptoms of hypothyroidism can be broadly incorporated under General appearance, Respiratory system, Cardiovascular system, Digestive system, Neuromuscular

system, Integumentary system and Reproductive system **which overall impacts the impairment of *Doshik* aspects in the body especially *Vata* and *Kapha Dosha***.

Thus in this study an humble attempt is made considering *Shodanadigana Sangraha Adhaya* of *Ashtanga Hrudaya Sutra Sthana* as a base to critically evaluate the management of hypothyroidism in accordance with *Dosha*.

AIMS AND OBJECTIVES

- To critically and analytically evaluate the management of Hypothyroidism in accordance to *Doshik* Concept.

MATERIALS AND METHODS

INTERPRETATION OF HYPOTHYROIDISM IN DOSHIK WAY

नास्ति रोगो विना दोषैर्यस्मात्तस्माद्विचक्षणः ॥
अनुक्तमपि दोषाणां लिङ्गैर्व्याधिमुपाचरेत् ॥ १९ ॥ [14]

Tridosha plays prime most importance in development aspect, as well as regulation of hormone.

- Regulation of Hormones – Hypothalamo pituitary axis- TRH (Thyrotropin releasing hormone , TSH- Thyroid Stimulating hormone)- TSH regulates thyroid gland function through TSH-R[11] : Contribution of normal functioning of *Tridosha* in Hormonal regulation
- Development aspect- "*Vayum Vibhajati*……"
- Recessive loss of function mutations of TSH-R causes thyroid hypoplasia and Congenital Hypothyroidism[11]- Impairment in functioning aspects of Tridosha.

There is no disease manifestation in *Ayurveda* without the involvement of *Dosha,* thus the Hypothyroidism too.

INTERPRETATION OF CLINICAL FEATURES

SYMPTOMS[6]	***DOSHIK* INTERPRETATION**
Tiredness, Weakness[6]	***Vata, Kapha***
Feeling Cold[6]	***Vata, Kapha***
Paraesthesia[6]	***Vata, Kapha***
Hair loss[6]	***Vata***
Dry Skin[6]	***Vata***
Constipation[6]	***Vata***
Hoarse Voice[6]	***Vata***
Dyspnoea[6]	***Vata***
Impaired hearing[6]	***Vata***
Menorrhagia (Later oligomenorrhea or amenorrhea) [6]	***Vata***
Weight Gain with Poor appetite[6]	***Kapha***
Difficulty concentrating and poor memory[6]	***Vata, Kapha, Pitta***

SIGNS	***DOSHIK* INTERPRETATION**
Cool peripheral extremities[6]	***Vata Kapha***
Delayed tendon reflex relaxation[6]	***Vata Kapha***
Dry coarse skin[6]	***Vata***
Diffuse alopecia[6]	***Vata***
Bradycardia[6]	***Vata***
Peripheral oedema[6]	***Kapha***
Puffy face, hands and feet[6]	***Kapha***
Serous cavity effusions[6]	***Kapha***

BASED ON DOSHIK INVOLVEMENT- MANAGEMENT OF HYPOTHYROIDISM

Ashtanga Hrudaya Sutra 15th chapter[14]

- *Shamana Gana*[14]
- *Shodana- Pancha Vidha Shodana*[14]

***Kaphahara Gana*[14]**

Aragwadadhir Arkadir Mushkakadhyo Asanadikaha |

Surasadih Sa Mustadir Vatsakadir Balasajith ||

***Vatahara Gana*[14]**

Bhadradaru Natam Kushtam Dashamoolam Baladwayam |

Vayum Veerataradischa Vidaryadischa Nashayet ||

MANAGEMENT OF HYPOTHYROIDISM BY MEANS OF DOSHIK ANALYSIS- A SUPPORTIVE CASE STUDY

- A male subject of 38 years age, resident of Bengaluru, Civil engineer , Married, High socio economic status and educational status
- Who is not known case of HTN and DM, k/c/o Hypothyroidism since 8 months, under Thyroxin 50 mcg
- Presents with chief complaints of tiredness and weakness and weight gain since 8 months
- On examination- cool peripheral extremities +, Puffy face, hands and feet++ , Peripheral oedema ++
- **Laboratory findings initially- TSH : 20.8 mIU/L, T4- 8.8 ug/dl , T3- 100 ng/dl** (Increased TSH with Normal T4 and T3 levels)
- Pradhana Dosha affected- **Kapha Vata**

Treatment Plan:

- Agni deepana Pachana with Chitrakadi Vati 2 tid ,before food for 3 days
- Vamana karma (Emesis procedure) with Madanaphala 15 gms +Vacha 10 gms+ Saindhava 05 gms + Madhu Q.S after 5 days of Snehapana with Varunadi Ghrita (30 ml to 250 ml)
- After Samsarjana karma: Varunadi Kashaya (A .Hr. Su 15) 15 ml tid before food with 30 ml ushna jala for 15 days

After treatment Signs and symptoms reduced to 80%, with Lab findings: TSH – 6.9 mIU/L, T4- 6.8 ug/dl and T3- 80 ng/dl

DISCUSSION

Hypothyroidism is a condition which is drastically increasing in a present era due to faulty life style habits which in turn acts at the chromosomal level and cause disturbance in the development and regulation of hormones. In India and at Worldwide prevalence and incidence of hypothyroidism is increasing and at present it constitutes 12 % and 11% of population respectively[12]. *Ayurveda* a life style with holistic approach plays a vital role in this scenario. The signs and symptoms of hypothyroidism includes wide range of symptoms pertaining to General appearance, Respiratory system, Cardiovascular system, Digestive system, Neuromuscular system, Integumentary system and Reproductive system which overall impacts the impairment of *Doshik* aspects in the body especially *Kapha* and *Vata Dosha*. Thus in this study an attempt is made to critically evaluate the management of hypothyroidism in accordance with *Dosha*.

CONCLUSION

- According to *Ayurveda*, any disease manifestation is not possible without *Dooshita Dosha*, hence Hypothyroidism too.
- Hypothyroidism can be interpreted based on *Doshik* levels which emphasises on *Kapha-Vata Dosha* involvement primarily.
- Planning treatment based on the *Doshik* involvement and *Avastha* plays a vital role in disease management.
- Managing the condition by incorporating *Shamana Chikitsa (Vata – Kapha hara)* and *Shodana karma* according to A Hr. Su has been taken up in the present study, which shows upon the tremendous results in case of Hypothyroidism.
- The interpretation of *Dosha* and managing hypothyroidism accordingly plays a significant role in clinical practise.
- Thus, *"Virudhairapi na twete guniairghnati parasparam*

  Doshaha sahaja samyatwat visham ghoramahiniva ||

  -Cha. Chi 26/213

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