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

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ABSTRACT

Hypothyroidism is the condition caused due to reduced production of thyroid hormone[1]. Primary hypothyroidism which is due to disease of thyroid itself, accounts for approximately 99% of the cases, with < 1% being due to TSH deficiency known as Central or Secondary hypothyroidism[2]. Worldwide and in India incidence and prevalence of hypothyroidism is increasing and at present 42 million people in India have thyroid disorders, affecting one in ten adults[3]. *Ayurveda* being a holistic science plays a vital role in this scenario. The Clinical features of hypothyroidism includes wide range of symptoms pertaining to General appearance, Integumentary system, Cardiovascular system, Digestive system, Neuromuscular system, Respiratory 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* considering *Shodanadigana Sangraha Adhaya* of *Ashtanga Hrudaya Sutra Sthana* as a base.

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

INTRODUCTION

The thyroid gland produces two related hormones, Thyroxin (T4) and Triiodothyronine (T3).[4] Acting through nuclear receptors, these hormones play a critical role in cell differentiation during development and help maintain thermo genic and metabolic homeostasis 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 glandular destruction and **hormone deficiency (*hypothyroidism*)**.[4] In addition, benign nodules and various forms of thyroid cancer are relatively common and amenable to detection by physical examination.[4]

Iodine deficiency remains the most common cause of hypothyroidism worldwide[5]. In areas of iodine sufficiency, autoimmune disease (Hashimoto's thyroiditis) and iatrogenic causes (treatment of hyperthyroidism) are most common[5].

Causes of Hypothyroidism are as follows: [6]

Primary causes: [6]

- Autoimmune hypothyroidism: Hashimoto's thyroiditis, atrophic thyroiditis[6]
- Iatrogenic: 131I treatment, subtotal or total thyroidectomy, external irradiation of neck for Lymphoma or cancer[6]
- Drugs: iodine excess (including iodine-containing contrast media and amiodarone), lithium, antithyroid drugs, *p*-aminosalicyclic acid, interferon-_ and other cytokines, aminoglutethimide[6]
- Congenital hypothyroidism: absent or ectopic thyroid gland, dyshormonogenesis, TSH-R mutation[6]
- Iodine deficiency[6]
- Infiltrative disorders: amyloidosis, sarcoidosis, hemochromatosis, scleroderma, cystinosis, Riedel's thyroiditis[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]

Secondary Causes: [6]

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

Signs and Symptoms of Hypothyroidism (Descending Order of Frequency) includes[7]

Symptoms: Tiredness, weakness, Dry skin, Feeling cold, Hair loss, Difficulty concentrating and poor memory, Constipation, Weight gain with poor appetite, Dyspnoea, Hoarse voice, Menorrhagia (later oligomenorrhea or amenorrhea), Paraesthesia, Impaired hearing[7]

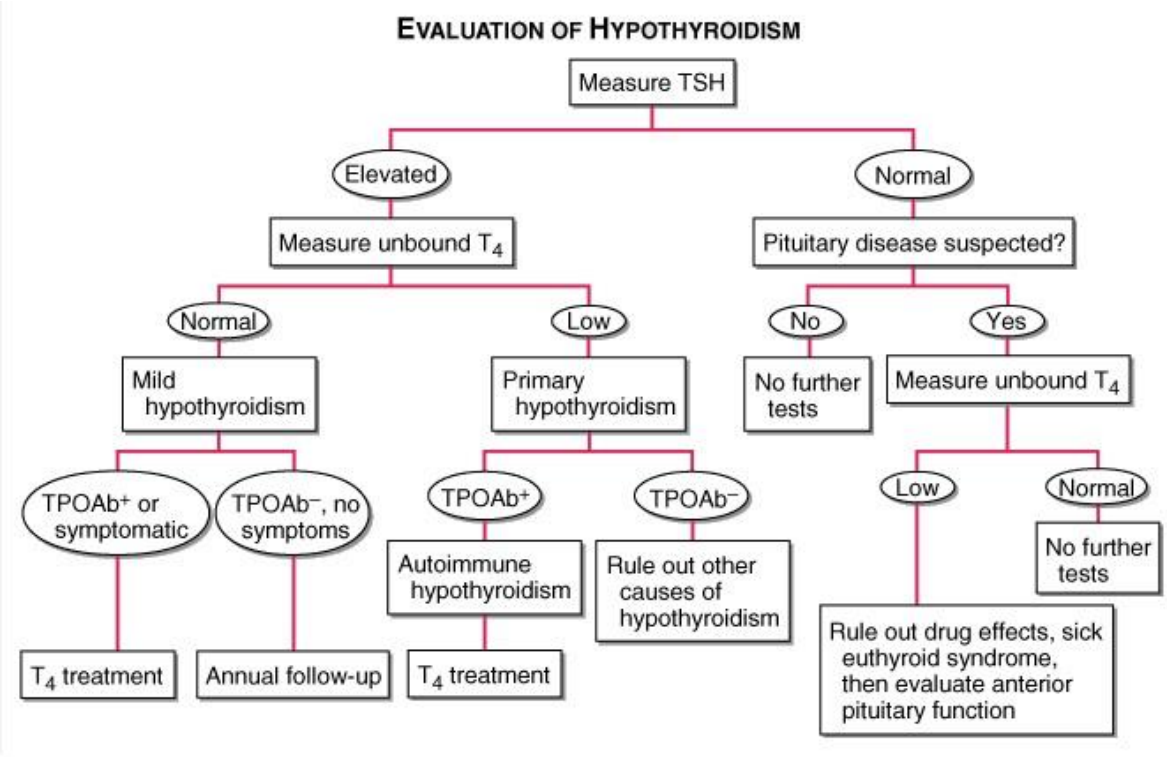
Signs: Dry coarse skin; cool peripheral extremities, Puffy face, hands, and feet (myxoedema), diffuse alopecia, Bradycardia, Peripheral oedema, Delayed tendon reflex relaxation, Carpal tunnel syndrome, Serous cavity effusions.[7]

Incidence and Prevalence:

In India at present based on a population based study 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.[9]

Treatment: [10]



***Ayurvedic* Interpretation:**

The Clinical features of hypothyroidism can be broadly incorporated under General appearance, Integumentary system, Cardiovascular system, Digestive system, Neuromuscular system, Respiratory 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* considering *Shodanadigana Sangraha Adhaya* of *Ashtanga Hrudaya Sutra Sthana* as a base.

AIMS AND OBJECTIVES

- To 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.

- Development aspect- "*Vayum Vibhajati……*"
- 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
- 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 without the involvement of *Dosha,* thus the Hypothyroidism too.

INTERPRETATION OF SIGNS AND SYMPTOMS

SYMPTOMS[6]	***DOSHIK* INTERPRETATION**
Tiredness, Weakness[6]	***Vata, Kapha***
Dry Skin[6]	***Vata***
Feeling Cold[6]	***Vata, Kapha***
Hair loss[6]	***Vata***
Difficulty concentrating and poor memory[6]	***Vata, Kapha, Pitta***
Constipation[6]	***Vata***
Weight Gain with Poor appetite[6]	***Kapha***

Dyspnoea[6]	***Vata***
Hoarse Voice[6]	***Vata***
Menorrhagia (Later oligomenorrhea or amenorrhea) [6]	***Vata***
Paraesthesia[6]	***Vata, Kapha***
Impaired hearing[6]	***Vata***

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

MANAGEMENT OF HYPOTHYROIDISM BASED ON DOSHIK INVOLVEMENT

Ashtanga Hrudaya Sutra 15th chapter[14]

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

Vatahara Gana [14]

Bhadradaru Natam Kushtam Dashamoolam Baladwayam |

Vayum Veerataradischa Vidaryadischa Nashayet ||

Kaphahara Gana[14]

Aragwadadhir Arkadir Mushkakadhyo Asanadikaha |

Surasadih Sa Mustadir Vatsakadir Balasajith ||

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

- A female subject of 35 years age, resident of Bengaluru, Software engineer , Married, High socio economic status and educational status
- Who is not known case of HTN and DM, k/c/o Hypothyroidism since 6 months, under Thyroxin 50 mcg
- Presents with chief complaints of weight gain, tiredness and weakness since 6 months
- On examination- Puffy face , hands and feet++ , Peripheral oedema ++ , cool peripheral extremities +
- **Laboratory findings initially- TSH : 16.9 mIU/L, T4- 6.8 ug/dl , T3- 90 ng/dl** (Increased TSH with Normal T4 and T3 levels)
- Pradhana Dosha affected- **Kapha Vata**

Treatment Plan:

- Agni deepana Pachana with Vaishwanara Choorna[15] 1 tsp b/d with ushna jala ,before food for 3 days
- Vamana karma with Madanaphala 10 gms +Vacha 05 gms+ Saindhava 05 gms + Madhu after 5 days of Snehapana with Gugguku Tiktaka Ghrita(30 ml to 150 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 – 8.9 mIU/L, T4- 5.8 ug/dl and T3- 90 ng/dl

DISCUSSION

The condition, Hypothyroidism is increasing in a present era rapidly due to various life style modifications which in turn acts at the chromosomal level and cause disturbance in the development and regulation of hormone. Worldwide and in India incidence and prevalence of hypothyroidism is increasing and at present it constitutes 12 % and 11% of population respectively[12]. Ayurveda being a holistic science plays a vital role in this scenario. The Clinical features of hypothyroidism includes wide range of symptoms pertaining to General appearance, Integumentary system, Cardiovascular system, Digestive system, Neuromuscular system, Respiratory 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

- Any disease manifestation is not possible without Dooshita Dosha, hence Hypothyroidism too.
- Hypothyroidism can be interpreted based on Doshik levels which emphasises on Vata –Kapha Dosha involvement primarily.
- Planning treatment based on the Avastha and Doshik involvement plays a vital role in disease management.
- Managing the condition by incorporating Shodana karma and Shamana Chikitsa (Vata – Kapha hara) 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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