

A Systemic Review on Hypothyroidism – a Most Prevalent Disease in India

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Abstract

Ayurveda suggests that it can be related to Agni's activity. The Saman Vayu aids the *Jatharagni*, who is in charge of controlling food absorption and digestion. *Bhutagni* is in charge of transforming heterogeneous materials into homogeneous ones. *Aahar-rasa* is converted into *kitta* and *sara* by *Dhatwagni*, who also controls metabolism. These vitiated Agnis cause the doshas to become imbalanced, which results in a number of conditions, including hypo- and hyperthyroidism. Additionally, symptoms of hypothyroidism and a Dosha Dushya imbalance may coexist. Nidan Sevan and Ama aggravate the hypothyroidism symptoms. By looking at the physiology of thyroid hormone, the vitiation of the *dosha dushya ama agnimandya* in hypothyroidism, and a brief therapeutic strategy, the current study seeks to investigate hypothyroidism from an ayurvedic viewpoint. Thyroid gland issues are becoming more and more of a global health problem. Globally, the prevalence of hypothyroidism is increasing because the thyroid gland is vulnerable to factors that cause stress and worry. Iodine deficiency is thought to affect 2 billion people worldwide, according to the WHO. A little or severe iodine deficiency can result in goiter and hypothyroidism, respectively. Women are 2–10 times more likely to experience these problems. In Ayurveda, there is no correlation between the thyroid glands at all. But the Ayurvedic medical system is fairly modern and gives little importance to disease classification. It rather insists on understanding the constitutional status of a disease and selecting the appropriate therapeutic approach. The primary role of thyroid hormone is to act as a spark to start the body's cellular metabolism.

Keywords: Hypothyroidism, *Agnimandya*, *Ama* etc.

Introduction

Thyroid hormones are generated by the thyroid gland, an important endocrine gland located in the neck. The thyroid gland generates the related hormones T4 thyroxine and T3 triiodothyronine.^[1] These hormones support adult body temperature regulation and

metabolic balance in addition to being essential for cell differentiation during development.^[2] An endocrine feedback loop is well recognized for controlling the thyroid axis. Hypothyroidism is the medical term for any disorder that results in a shortage of thyroid hormone, such as hypothalamic or pituitary malfunction or broad tissue resistance to thyroid hormone.^[3] Ayurveda assigns Agni control over the body's metabolism and thermogenesis.^[4] The Agni and the thyroid gland both have healthy and unhealthy functions. Additionally, Ama's symptoms and hypothyroidism symptoms are similar. Vitiating of the dosha dhatu that causes the symptom to appear.^[5]

Synthetic hormone derivatives may be used to treat hypothyroidism and bring the T3 T4 TSH value back into normal range, however owing to the higher dosage and ongoing therapy, the patient will remain drug dependent until they pass away.^[6] Therefore, improved therapy that is safer and more effective is needed for today's culture. Along with *vata kapha vridhi, pitta kshya, ama, and agnimandya* are hypothyroidism symptoms that are similar. The present essay aims to associate hypothyroidism with *agnidushti, ama, doshadushti* and *dhatudushti*.^[7]

A healthy *agni* keeps the body's regular metabolism running smoothly. There are three fundamental types of *agni*, each with a range of uses and locations where they act. The *agni*, which is housed in the *jathara* (digestive fire), digests and assimilates food. The *bhutagni* is in charge of turning inhomogeneous materials into ones that are.^[8] The *agni* present in the body tissues, *dhatwagni* and *bhutagni*, regulate metabolism. The right amount of *agni*, often referred to as *kayagni* or *dehagni*, is what causes normalcy in the body. Additionally, *agni* imbalance is what leads to disease in the body.^[9]

Methodology

The study is carried out using a critical evaluation of the data and a review of the relevant literature. To comprehend the pathophysiology of hypothyroidism, various Ayurvedic texts were critically analyzed.

Physiological Aspect of Thyroid

Protein metabolism raises the amount of protein that cells produce.

Carbohydrate metabolism encourages gluconeogenesis, glycogenolysis, and glucose absorption to produce free glucose, which gives the body energy.^[10]

Lipid metabolism

This procedure aids in the metabolism of fat by accelerating the oxidation of lipids to create energy and releasing lipids from adipose reserves. By releasing stored fat from adipose tissue and fat depots, thyroxine reduces the production of new fat. Thyroxine increases the level of free fatty acid in the blood because the mobilized fat is transformed into free fatty acid and transported through the circulation.^[11]

Increases BMR while speeding up various cellular metabolic processes to increase the body's capacity to create heat. As a result, body temperature is affected.

Accelerating development, particularly in young children.

An increase in heart rate brought on by increased cardiac contractions brought on by CVS

Hypothyroidism

The abnormally low thyroid gland activity that characterizes hypothyroidism hinders the growth and mental development of both children and adults. Iodine deficiency is still one of the main causes of hypothyroidism worldwide.^[12]

Iatrogenic causes (treatment for hyperthyroidism) and Hashimoto's thyroiditis are the most common autoimmune illnesses.

There are more causes as well, including the use of medications, an excess of iodine, contrast media that include iodine, and amiodarone. lithium, a metal. thyroiditis, congenital hypothyroidism, and antithyroid drugs.

Trauma, pituitary surgery, tumors, and isolated TSH deficiency are secondary causes of hypopituitarism.

Analysis Of Hypothyroidism

The thyroid gland is referred to in Sanskrit as *avatu*, whereas *ojas* is our inherent strength and immunity. Ojas is depleted and *kapha* is forced out of equilibrium with *vata* by a chronic *vata- pitta* imbalance. The major etiological factors that lead to hypothyroidism are vitiated *tridosha*, *kapha* predominance, *vata vrudhi*, and *pitta kshaya*, both of which aggravate *vata*.^[13] This *tridosha* vitiation leads to the derangement of *jatharagni*, which in turn triggers the derangement of *dhatwagni* and the manifestation of ama. The symptoms of this ama are similar to those of hypothyroidism because it obstructs the body's channels (*srotorodha*), which alters the contents of the channels and vitiates *strotasa* and dhatu.^[14]

TABLE NO. 1 INVOLVEMENT OF DOSHA

Symptoms	Dosha involvement
Puffiness of body	<i>kapha vrudhi</i>
Loss of appetite	<i>kapha vrudhi pitta kshay</i>
Dry and coarse skin	<i>vata vrudhi pitta kshaya</i>
Minimal or absent sweating	<i>Pitta khaya</i>
Constipation	<i>vata vrudh</i>
Hoarseness of voice	<i>kapha vata vrudhi</i>

TABLE NO. 2 INVOLVEMENT OF DHATU

<i>Rasa</i>	weight gain, loss of appetite, heaviness of body, lethargy, premature aging symptoms – menstrual disorders infertility
<i>Rakta</i>	dry skin, slow pulse rate, lethargy
<i>Mamsa</i>	heaviness in body, muscle ache, <i>granthi, galganda</i>
<i>Meda</i>	tiredness, sleepiness, sluggishness
<i>Asthi</i>	osteoporosis OA
<i>Majja</i>	Osteoporosis
<i>Shukra</i>	loss of libido, infertility.

TABLE NO. 3 INVOLVEMENT OF AMA

Ama lakshan ¹⁰	Symptoms
<i>Bal bhrinsha</i>	delayed development milestones, cold intolerance, mental impairment
<i>Gaurava</i>	Swollen puffy oedematous face, weight gain
<i>Anil mudhata</i>	Slow HR, jointpain, inability to concentrate
<i>Aalasya</i>	Lethargy sleepiness
<i>Aruchi Apakti</i>	Decrease appetite and BMR
<i>Malasanga</i>	Constipation
<i>Klama</i>	loss of energy, apathy, fatigue

INVOLVEMENT OF AGNI

Almost all body cells are affected by the metabolism of thyroid hormone. Each and every biological cell is affected by *agni*. Similar to how thyroid hormones help with the metabolism of proteins, lipids, and carbs, *jatharagni* works with *saman vayu* to help with the digestion of these substances into the intestine. *Bhutagni* converts these heterogeneous molecules into homogeneous compounds at the cellular level.^[15]

It is believed that a vitiated *agni* is the root of all physical ailments. Agni cannot even partially digest the food that has been taken because Agni is in a vitiated state termed *agnimandya*. *Agnimandya* produces an abnormal rasa dhatu as a result of inadequate digestion. Ama. The signs and symptoms of this ama are similar to those of hypo- or hyperthyroidism.^[16]

DHATU VRIDDHI

The Dhatus also contain a portion of Kayagni, which is already extant in its own place. The Dhatus increase and decrease (respectively) as a result of their decline and increase (respectively) in number, quality, or functions. The subsequent Dhatu will also rise or decrease if the prior Dhatu does.^[17]

For instance, Agni alone, which is represented by Pitta in the body, is responsible for digestion or indigestion, vision or loss of vision, normalcy or otherwise of bodily heat, normalcy or otherwise of complexion, value and fear, anger and joy, bewilderment and happiness, and such other pairs of opposite qualities.^[18]

Involvement of Ama

The *Samadosha lakshanas* include a blocked channel, weakness, a feeling of weight in the body, *vata* inactivity, lassitude, loss of digestive capacity, increased expectoration, a buildup of wastes, anorexia, and exhaustion. Lethargy, weariness, a sensation of weightiness in the body, sleepiness, and loss of appetite are some of the clinical signs of hypothyroidism.

SAMPRAPTI GHATAKA

Dosha- Kapha vrudhhi, pitta dushti, vata vrudhhi Dushya- all dhatus predominantly rasa, medha Agni- Jatharagni, Dhatvagni

Ama- Jatharagni, mandya janita, Dhatvagnimandya janita

Srotas- all srotas

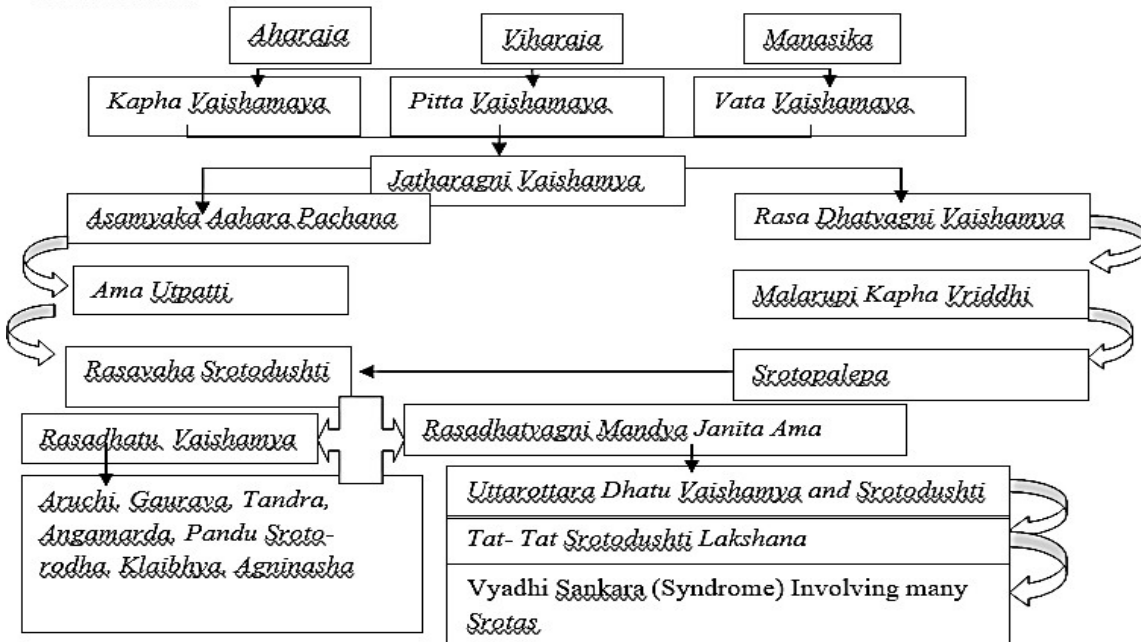
Srotodushti- sanga, vimarga gamana Adhishtana- gala pradesha

Udhbava sthana- Amashaya

Rogamarga- Bahya Vyakta sthana- Sharira

SAMPRAPTI

Samprapthi



TREATMENT OF HYPOTHYROIDISM SHAMAN CHIKITSA

DEEPAN PACHAN

It is essential to manage *agni* with the metabolism-boosting digestive herbs known as *dipanas* before purifying ama with *pachnas*. The *deepan pachan* therapy improves

Jatharagni in ama dosha instances, which in turn normalizes *Bhootagni* and *Dhatwagni*. As a consequence, the Ayurvedic therapy modulates metabolism at the cellular level in addition to relieving symptoms.

LEKHANIYA DRAVYA CHIKITSA

Chitrak and *guggulu*, are beneficial for losing extra weight.

RASAYAN CHIKITSA

All of the aforementioned medications are effective, but because they have a warming effect, which might aggravate pitta and deplete ojas, it is important to alter the dosage of these herbs accordingly. If pitta is vitiated, Rasayanas should be used instead.

SHODHANA CHIKITSA

Charged *virechanam* *Siravyadha* *Agnikarma* *Ksharyoga* *Nasyam* *Swedo* *Dhooma* *Bhajjaya* *Ratnavali* *Chikitsa* *Galganda*, *Pralepo* *Langhanani* *Cha*

The therapies mentioned in *Bhaishjya Ratnavli*, including *vaman virechan* *Nasya* *Swedan* *Dhoompaan* *Siravyadha* *Agni karma* *Kshar yog* *Pralepa* *Langhana*.

Vaman is equipped with a *madanphala pippali*, *Mrudu Virechan* has a *gandharv Hasyadi tail* and a *trivrutt*, and *Snehapana* has an *amrutadya tail*, a *tumbi tail*, and a *goghrita*.

CHURNA KALPANA

Guggulu panchapalam Churna

Abhaya Churna Churna

Vyoshadi hurna

Shaddharana Churna VATI KALPANA

Triphala Guggulu

Kanchanar Guggulu

ARISHTA KALPANA

Abhayarishtam

Ayaskriti

PATHYA AHARA VIHAR AHARA

Aahar - kaphahara Aahar (lukewarm water) is a term used to describe ragi vegetables such as radish sarshap gandeera and spices such as shunthi jeerak trikatu ushna jala.

VIHARA

regular exercise such as yoga asana pranayama and *surya bhedan kapalbhati*.

APATHYA

food that is refined and substantial. anything that has been fried. potatoes, peas, black gram, and white floor are examples of refined foods. Items made of dairy, bread, and fermented foods.

Discussion

The underlying pathophysiology of hyperthyroidism is not being sufficiently addressed by the current hyperthyroidism treatment regimen. It is possible for us to conclude from the conceptual pathology that the disease is largely *ras medo dushti* with *Kapha pradhan tridosha vyadhi*. *Nidan Parivarjan* and *Deepan Pachan Chikitsa* aid in reducing *Agnimandya* and *Ama*, which have at last eased hypothyroidism symptoms and provided comfort. Yogas such as *Varunadi Kashay* and *Kanchnar Guggulu* help to lessen *srotolepa* and to resolve *agnimandya*. Synthetic hormone derivatives may be used to treat hypothyroidism and bring the T3 T4 TSH value back into normal range, however owing to the higher dosage and ongoing therapy, the patient will remain drug dependent until they pass away. Ayurveda can consequently provide longer-lasting, safer, and better treatment.^[19]

Hypothyroidism can be categorized as a *Kapha Pradhana. Tridosha Vyadhi* with predominant *Rasa* and *Medo Dushti* due to a conceptualization of its symptoms. The course of therapy might be planned using *Dosha Pratyaneeka Chikitsa* rather than *Vyadhi Pratyaneeka Chikitsa*. *Varunadi Kashaya* and *Kanchanara Guggulu* are two of the 20 yogas that help with *Srotolepa* elimination and *Agnimandhya* resolution.^[20] The *Sodhana Chikitsa* strengthens *Agni*, whereas the *Sthanika Lepas* weakens *Sthanika Dosha Vruddhi*. If the patient is currently on levothyroxine, weaning them off the medicine will require greater brain stimulation. If the patient has diabetes or high blood pressure, the treatment strategy should be more careful.^[21]

Conclusion

Hypothyroidism might be considered a condition that causes *Dosha dushti*. *Agnimandya* is the result of *pitta kshya* and *kapha vata dosha vrudhi*. This vitiation of Agni results in the creation of the *Mandya Dhatwagni Ama Nirmiti*. *Dosha Pratyantik Chikitsa* will make it simpler to handle this illness. *Rasayan* will help with condition control since it promotes *strotomukh vishodhan*. We utilize Ayurveda to treat the underlying imbalance of hypothyroidism, not simply its symptoms.

Conflict of interest -nil

Source of support -none

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