



A LITERARY REVIEW OF HYPOTHYROIDISM W.S.R. TO *DHATWAGNIMANDHYA*, *AMA* AND *AVARANA*

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ABSTRACT:

Thyroid problems are the most common endocrine disorders presently seen worldwide and hypothyroidism is one of the most common functional disorders of the thyroid gland. There is no direct reference to thyroid disorder in *Ayurvedic* classics. Endocrine disorders are difficult to understand in *Ayurveda*. It can be understood as *Kaphavrita Samana*, *Kaphavrita Udana*, Pathological increase of *Kapha*, *Medodushti*, *Agnimandya*, *Ama*, etc. So, hypothyroidism should be understood based on the vitiation of *Doshas*, tissues, and channels involved in the pathogenesis of the disease. It has been reported that in India alone, about 42 million people suffer from thyroid disorders. The incidence of hypothyroidism is increasing day by day, and there is increasing demand to treat the disease through the *Ayurvedic* system of medicine. Hence, here is an attempt to get an understanding of the disease Hypothyroidism as per *Ayurveda* through various *Ayurvedic* principles to set its management strategies.

Keywords – Hypothyroidism, *Dhatwagnimandhya*, *Ama*, *Kaphavrita-Vata*, *Kapha*.

INTRODUCTION

Although, after mere knowledge of disorder about the thyroid gland from the view of the modern system of medicines, one cannot directly correlate this in *Ayurveda* as whole disease signs and symptoms which we approach in day-to-day clinical practice can be seen in *Ayurvedic* texts in different manners. In *Charak Samhita* eight types of *Nindita Purushas* ^[1] i.e. *Atidirgha*, *Atihrusva*, *Atiloma*, *Aloma*, *Atigaura*, *Atikrishna*, *Atisthula*, *Atikrishha* have been discussed which can be taken as functional disorders of the endocrine gland. The Clinical features and Pathogenesis of hypothyroidism also mimic the Clinical features and *Samprapti* of *Shotha*, to which the *Galaganda* and *Gandamala* are referred. *Galagand* is also mentioned under 20 *Kapha Nanatmaj Vikaras* ^[2]. Involvement of *Avarana* has also been seen in the pathogenesis of Hypothyroidism. We have to analyze the clinical presentation of Hypothyroidism, which resembles *Lakshnas* of *Vata Kapha Vruddha Pitta Kshaya* ^[3], *Lakshanas* of *Kapha-avrutta Vata (Kaphaavrutta Udanavata, Kaphaavrutta Samanavata)* along with *Dhatwaagnimandya*. As per *Charak Samhita*, it is not necessary that disease manifestation must have a certain name, but it is more important to understand the possible pathogenesis of the disease in terms of involved factors. Here, knowledge of *Agni-Dosha-Dhatu-Srotas-Ama-*

Avarana requires a critical study as per their involvement in different clinical entities.

Aim and objectives –

1. To understand Hypothyroidism in terms of *Ayurveda*.
2. To review causative factors, pathogenesis, and treatment modalities of Hypothyroidism.

Material and methods –

For this review study literary material i.e., *Ayurvedic* text *Bhavprakasha*, *Yogaratanakara*, *Bhaishajya Ratnavali*, authentic publications indexed in Google Scholar & pub Med, and modern medical literature have been reviewed.

Hypothyroidism – An *ayurvedic* view

Nidana –

The factors responsible for the manifestation of the disease are known as *Nidana* ^[4]. *Ayurveda* states that *Mandagni* is the root cause of all the disorders. This statement holds well in the case of Hypothyroidism. As described earlier *Jatharagni* and *Dhatwagni vyapara* can be co-related to the metabolic activities of the thyroid gland. The causes for the impairment of the *Jatharagni* and *Dhatwagni vyapara* are the state of *Agnimandhya* and the *prakopa* of *Kapha Dosha* ^[5]. Hence the factors responsible for the derangement of these two may be considered as causative factors for Hypothyroidism. The qualities of *Kapha Dosha* ^[6] are *Snigdha* (unctuous), *Sheeta* (cold, producing coldness), *Guru* (heavy), *Manda* (sluggish, dull), *Slakshna* (smooth, slippery),

and *Mrutsna* (shining) and *Sthira* (firm, static).

The excess use of the factors, which are having these *gunas*, will cause *prakopa* of *Kapha Dosh* and *Agnimandhya* in the body.

- **Based on Rasa:** The excess intake of *Madhura*, *Amla*, and *Lavana rasa*.
- **Based on Guna:** The excess intake of the *gunas* such as *Snigdha*, *Sheeta*, *Guru*, and *Pichhila*.
- **Based on Ahara Dravyas:** *Masha*, *Mahamasha*, *Yavaka*, *Naishdha*, *Itkada*, *Godhuma*, *Tilapista vikruti*, *Dadhi*, *Dugdha*, *Krusara*, *Ikshuvikaras*, *Anupamamsa*, *Anduka mamsa*, *stem and stalk of lotus*, *Kaseruka*, *Srungrataka*, *sweet fruits*, *cucurbitaceous fruits*, *Navanna*, *Nava Madhya*, *Pruthuka*, *Sashkuli*, *Amaksheera*, *Kilata*, *Morata*, *Koorchika*, *Takra pindyak*, *Paistika*, *Piyooosha*, *Phanita*, *Guda*, *Mocha*, *Kharjura* etc. The above-stated foods like *Navanna*, *Ikshu*, *Guda Vikara*, *Shali*, *Godhuma*, and *Masha* are *Guruguna Ahara* which can cause *Agnimandhya* at the level of *Rasadhatu* leads to *Uttarottara dhatwagni mandhya* hence these *Aharaja Nidana* causes *Santarpana Janya Vyadhi (Metabolic Disorder)* [7] *Ahara Krama:* *Atisampurana*, *Adhyashana*, *Vishamashana*, *Viruddhashana*, *Samashana*, *Atyambupana*, *Bhojanottara Jalapana* etc.
- **Based on Vihara:** *Diwaswapna*, *Avyayama*, *Nidrasukha*, *Achinta*,

Sayyasana sukham

- **Manasika Nidana:** *Alasya*, *Chestadweshya*, *Tyakta chinta* and *Praharsha*.
- **Any Nidana: Adrishtavashat:** The factor that cannot be understood properly or cannot be seen directly or assessed directly is said to be *Adrishtavashat*. So, this pertains to *Charaka's* version of *Beeja Swabhava* which is heredity or genetic predisposition. These are mainly due to defects in either the *Shukra* or *Shonita* or both which are transmitted in the progeny.

Purvrupas (Prodromal symptoms):

The *Purvarupa* are the premonitory symptoms of a disease [8]. Hypothyroidism takes a long course of time to manifest completely and the pathogenesis of this itself is very slow due to the delayed metabolism, *Aruchi*, *Ajeerna*, *Agnimandya* and production of *Ama* both at the *Jatharnagi* and *Dhatwagni* level and Symptoms to *Kapha Vriddhi* like *Atinidra*, *Tandra*, *Alasya*, *Asyavairasya*, *Angagaurava*, *Shaithilya* etc. can be considered as *Purvarupa* of Hypothyroidism. Hypothyroidism is so insidious that the classical findings take months to appear and the disease frequently goes unnoticed for years and cannot be diagnosed at its early stage.

Rupa:

Rupa has a dominant place in the classical Ayurvedic description of "*Nidana Panchaka*" *Rupa* appears after the completion of *Dosha Dushya Sammurchhana*. *Dosha Dushya Sammurchchhana* leads to the presentation of

clinical features of the manifested disease. In the fifth kriya kala i.e., in the stage of *Vyaktavastha*, the actual signs and symptoms of the disease are exhibited. Depending on the predominance of the *Doshas*, the *lakshanas* are observed. *Rupa* is an expressed phase of the disease. It, on the one hand, provides clues for the permanent diagnosis and simultaneously, on the other hand, says about the intensity and chronicity of the diseased condition. *Rupas* always appear after *Dosha Dushya Sammurcchna*.

- **Abnormal weight gain** - This can be considered as *Dhatvagni Mandya* which causes *Dhatuvridhi* and eventually *Medovridhi* takes place.
- **Puffy appearance of body features** - As *Kapha* is found in an augmented state, due to its Prithvi and *Apa mahabhuta* predominance, properties of heaviness and steadiness, this puffiness shows.
- **Loss of appetite** - It became a result of hypo-functioning of *Jatharagni* which produces *ama* and *Kapha* which further causes *Jatharagni* and *Dhatvagnimandya*.
- **Dry, coarse skin hair** - *Vitiated Vata Dosh*a causes dryness of the skin [9]. Moreover, *Twaka*, *Updhatu* of *Mamsa Dhatu*, gets affected because of *vitiated Mamsa Dhatu* and loses normalcy.
- **Minimal/absent sweating** - Physiologically, body temperature is acquired by *Pitta* because it loses intense heat from the body in the form of *Sweda*.

Its hypo functioning leads to the above-said feature.

- **Anemia** - In succession to *Dhatvagnimandya*, *Rasa Dhatu* gets vitiated which is unable to nourish *Uttaradhatu*, *Rakta*. *Pandu* has been described under *Rasa Dushtijanya Vikara* too [10].
- **Constipation** - *Vata Prakopa* results in *Gadhavarchastvam* [11] and aggravated *Kapha (Manda Guna)* may cause a decrease in *Apkarshani Gati* of *Mahasrotas* which leads to constipation.
- **Hoarseness of voice** - According to *Sharangdhar* hoarseness of voice arises from vitiated *Kapha (Manda Guna)*. *Acharya Sushruta* mentioned *Vakaparushya* as a symptom of *Vata Vridhi* [12].
- **Generalised aches and pain** - *Rasaj Vikara* arise from *Dhatvagnimandya* and aggravated *Vata Dosh*a (increased *Toda*) may lead to the causation of this symptom [13].
- **Sluggishness** - In other words, *Shaithilaya*, and *Alasya* results from vitiated *Rasa* and *Kapha*.
- **Tiredness** results from aggravated *Vata*.
- **Menstrual disturbances** - Due to hypo functioning of *Agni*, *Rasa Vridhi* results which is in *Asthayi* form. This vitiated *Dhatu* can't nourish *Updhatu Artava* and *Stanya* properly. Hence, *Artava Pravrutti* ceases. Secondly, vitiated *Dosh*as cause

Artvavahasrotodushti, and interruption of these *Srotas* results in *Anartva*.

- **Cold intolerance** - Suppression of *Pitta*, *Mandoshmata*, and increased *Shita Guna* of *Kapha* and *Rasa Dhatu* leads to *Shaitya* [14].
- **Forgetfulness** - *Aggravating Kapha* may cause *Buddhimandya*. Also, *Manovaha Srotas* are affected by vitiated *Doshas*. All this makes a patient to be forgetful.
- **Sleepiness** - *Vitiated Rasa* and *Kapha* provoke sleepiness [15].
- **Slow pulse rate** - It may be due to *Manda Guna* of *vitiated Kapha*.
- **Muscle cramps/stiffness** - It is influenced by to over-functioning of *Vayu*. Moreover, *Kandara* and *Snayu*, *Upadhatus* of *Rakta* and *Medodhatu* respectively, don't get proper nutrition which results in their inappropriate action.

Samprapti (Pathogenesis):

According to *Acharya Sushruta (Su. Su.24/8)*, vitiated *Doshas* while circulating in the body and get accumulated where ever, find *Khavaigunya* in *Srotas*, they get '*Sanga*' by

Table no. 01: Showing *samprapti ghataka* of hypothyroidism

<i>Dosha</i>	<i>Kapha Vriddhi associated with Pitta Dushti</i> <i>Vata – Samana, Vyan</i>
<i>Dushya</i>	<i>Rasa Dhatu, Meda Dhatu</i>
<i>Agni</i>	<i>Jathragni, Rasa Dhatvagni,</i>
<i>Srotasa</i>	<i>Rasavaha, Medovaha</i>
<i>Srotodusti</i>	<i>Sanga, Vimarga Gamana</i>
<i>Adhithana</i>	<i>Gala Pradesh</i>
<i>Udbhavsthana</i>	<i>Aamashaya</i>

Doshadushya sammurcchana there and produce *Vyadhi*. As explained before *Kapha Dosh* plays a major role in Hypothyroidism. *Vriddha Kapha* by obstructing the channels vitiates the *Vata Dosh* also and *Jatharagni* gets impaired due to this *Vriddha Kapha*, which leads to *Rasadhatu Dushti*. This *Dushita Rasadhatu* plays an important role in pathogenesis. *Dhatvagnimandhya* is a major feature of the disease which produces *Ama*. In Hypothyroidism, hormonal disturbances cause many metabolic disturbances and a decrease in basal metabolic rate which leads to results from this pathogenesis. Many signs and symptoms are related to decreased metabolism.

Samprapti Ghatakas of hypothyroidism:

For the study of the manifestation of Hypothyroidism in the light of *Ayurvedic* concepts of *Dosha*. *Dushya* and *Srota's* involvement in the following factors plays their role in *Samprapti's* Hypothyroidism.

<i>Vyaktasthana</i>	<i>Sarvangasharira</i>
<i>Rogamarga</i>	<i>Bahya and Abhyantara</i>
<i>Sadhyata</i>	<i>Krichhasadhya</i>

Samprapti Flow Chart:

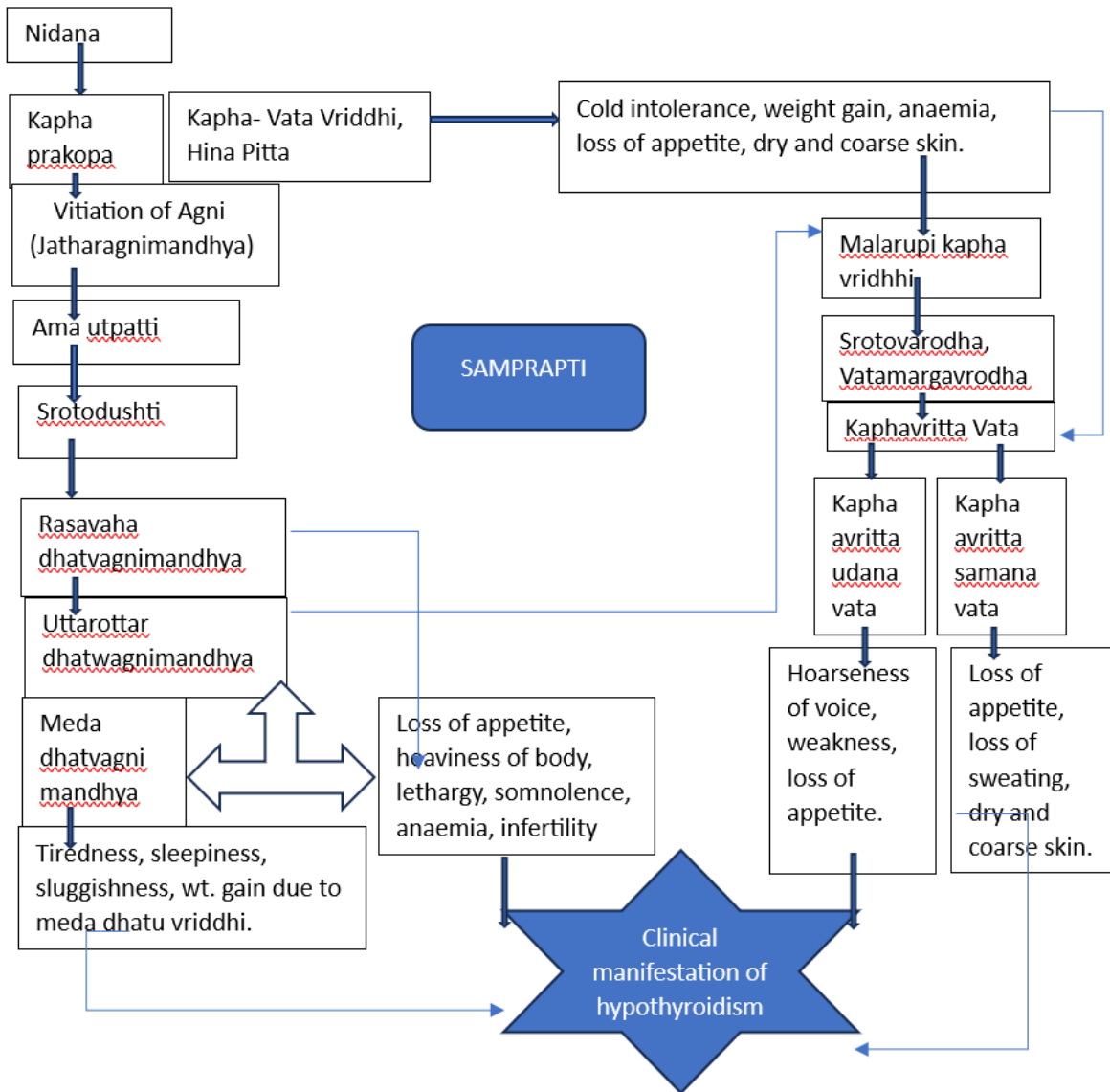


Fig 1: Flowchart of Pathogenesis

Involvement *Tridosha*, *Dhatu*, *Srotas*, *Ama*, *Agni*, and *Avarana* can be described as follows.

Involvement of *Tridosha* in hypothyroidism:

Looking into the clinical presentation of hypothyroidism, the involvement of *Tridosha* should be considered in which *Kapha Dosha* is

the main culprit associated with *Pitta Kshaya* and *Margavaranajanya Vata Vriddhi* can be considered as it is seen in the symptoms ^[16].

Table no. 02: Showing the relation between the clinical manifestation of hypothyroidism and involved dosha:

S.No.	Symptoms	Dosha involved	References
1.	Weight Gain	<i>Kapha Vruddhi</i> <i>Pitta Kshaya</i>	<i>Ch. Su.17/56; A.H.Su.11/7; Ch. Su.20/17</i>
2.	Puffiness of body features	<i>Kapha Vruddhi</i>	<i>Ch. Su.18; A.H.Su.12/53</i>
3.	Loss of appetite	<i>Kapha Vriddhi;</i> <i>Pitta Kshaya</i>	<i>A.H.Su.11/7; A.H.Su.11/16</i>
4.	Dry and coarse skin	<i>Vata Vriddhi;</i> <i>Pitta Kshaya</i>	<i>Ch. Su.20/17; Ch.Su.17/56</i>
5.	Minimal/absent sweating	<i>Pitta Kshaya</i>	<i>A.H.Su.12/52</i>
6.	Anemia	<i>Kapha Vriddhi;</i> <i>Pitta Kshaya;</i> <i>Vata Vriddhi</i>	<i>Ch. Su. 17/56</i>
7.	Constipation	<i>Vata Vriddhi</i>	<i>A.H.Su.11/6; Su.Su.15/18</i>
8.	Hoarseness of voice	<i>Kapha Vriddhi;</i> <i>Vata Vriddhi</i>	<i>Sharangdhara; Ch.Chi.16/24; Su.Su.15/18</i>
9.	Generalised aches, pain	<i>Vata Vriddhi</i>	<i>Ch. Su.17/44</i>
10.	Muscular cramps, stiffness	<i>Vata Vriddhi</i>	<i>Ch. Su.17/47; Su. Su.20/11</i>
11.	Sluggishness	<i>Kapha Vriddhi</i>	<i>Ch. Su.17/55</i>

Most of the symptoms of hypothyroidism show *Kapha* dominance. Glycosaminoglycan deposition in the tissues can be considered as *Kapha Vargiya Dravya* which will obstruct the channels and hence obstruction to the proper movement of *Vayu* producing *Margavaranajanya Vata Prakopa*. Impaired metabolism can be considered as *Pitta Dushti*.

• Also some clinical conditions correlating with hypothyroidism described below include *Kapha* dominant conditions like *Kaphavritta Vata*, *Kaphaja Pandu*, *Kaphaja Grahani*, etc. Hence, the disease is *Tridoshaja* in nature.

Involvement of dhatu in hypothyroidism:

In the pathogenesis of hypothyroidism involvement of *Rasa* and *Meda Dhatu* can be considered predominantly.

Table no. 03: Showing the relation between the clinical manifestation of hypothyroidism and involved dhatu:

S. No.	Involved Dhatu	Symptoms	References
1.	Ras	Weight Gain; Loss of appetite(hypochlorhydria); Heavyness in the body, lethargy; Generalised aches; Somnolence; premature aging symptoms like hair loss etc.; Cold intolerance; Puffiness; Anemia; Menstrual disturbances; Infertility	<i>Ch.Su.28/9- 10; A.H.Su.11/7; Su. Su.15/32</i>
2.	Rakta	Slow pulse rate; Dry and coarse skin; Slowing of mental activity; Lethargy	<i>Ch.Su.17/65; A.H.Su.11/9; Su. Su.15/9</i>
3.	Mansa	Heaviness in the body; Muscle ache; Granthi; Galaganda	<i>Su. Su. 15/14</i>
4.	Meda	Tiredness; Sleepiness; Sluggishness; Hyperlipidaemia; Dyspnea on exertion	<i>Ch. Su. 28/13,14; Ch. Ni. 4/47; A.H. 11/11</i>
5.	Asthi	Osteoporosis, Osteoarthritis	<i>A.H. 11/19</i>
6.	Majja	Osteoporosis;	<i>A.H. 11/19</i>
7.	Shukra	Loss of libido; Infertility	<i>Su. Su. 15/14</i>

Involvement of Srotas in hypothyroidism: Because of the wide-ranging effects of thyroid hormones, hypothyroidism can have profound detrimental effects on numerous organ systems.

Table no. 04: Showing the interpretation of Srotodushti lakshanas with clinical manifestation of hypothyroidism:

S. No.	Involved Srotas	Symptoms	References
1.	Annavaha	Loss of appetite; hypochlorhydria; malabsorption	<i>Ch. Vi. 5/8; Su. Sha. 9/64</i>
2.	Rasavaha	Weight Gain; Loss of appetite; Heavyness in the body, lethargy;	<i>Ch. Su. 28/9-10; Ch. Vi. 5</i>

		Generalised aches; Somnolence; premature aging symptoms like hair loss, etc.; Cold intolerance; Puffiness; Anemia; Menstrual disturbances; Infertility	
3.	<i>Raktavaha</i>	Slow pulse rate; Dry and coarse skin; Slowing of mental activity; Lethargy; anemia	<i>Ch. Su. 24, Ch. Su. 28, Ch. Vi. 5; Su. Sha. 9/17</i>
4.	<i>Mamsavaha</i>	Oedema; <i>Galaganda</i>	<i>Su. Sha. 9/18; Su. Su. 15/14</i>
5.	<i>Asthivaha</i>	Osteoporosis, Osteoarthritis; Hair loss	<i>Ch.SU.28/16; A.H.11/19</i>
6.	<i>Majjavaha</i>	Osteoporosis;	<i>A.H.11/19</i>
7.	<i>Shukravaha</i>	Loss of libido; Infertility	<i>Su. Su. 15/14</i>
8.	<i>Purishvaha</i>	Constipation	<i>Ch. Vi. 5</i>
9.	<i>Swedavaha</i>	Sweating minimal/absent; Dry and coarse skin	<i>Ch. Vi. 5</i>
10.	<i>Artavavaha</i>	Loss of Libido, Infertility (secondary usually) Secondary amenorrhoea	<i>Su. Sha. 9</i>

Involvement of *Agni* in hypothyroidism:

There are 13 types of *Agnis* in the body- *Jatharagni-1, Bhutagnis-5, and Dhatwagnis- 7*. These thirteen types of *Agni* bring about all the chemical reactions and transformations in the body [17]. *Jatharagni* is most important as it influences other *Agnis* inside a living body. Further, as per the influence of *Doshas*, four functional states of *Agni* have been envisaged *Vishamgni, Samagni, Teekshnagni, and Mandagni* [18], *Samagni* is one of the most important criteria of *Swastha Purusha*, and for *Mandagni*, as *Acharya Vagbhata* has said - almost all the diseases are caused due to *Mandagni* (low digestive fire), especially the

abdominal diseases. If *Jatharagni* is normally functioning, the *Dhatwagnis* also function normally in accordance. If the *Jatharagni* is hypoactive, the *Dhatwagnis* also will be hypoactive. This depleted *Dhatwagni* will not be capable enough to metabolize the nutrients available at their disposal. There is an accumulation of unprocessed food (*ama*), improperly processed and formed *dhatu*, and toxins in the cells of the tissue. This leads to the formation of various systemic diseases. In this condition, the quantity and mass of the tissue will increase *Dhatu Vriddhi*, which is a pathological condition.

Mandagni denotes weaker metabolism. Hypothyroidism is also related to low metabolism, in fact, a cause of it. Treating weak digestive fire in hypothyroidism and kindling the same might catch the disease by its horns. This will also disable the continuation of pathogenesis and worsen the symptoms of the disease.

Involvement of *Ama* in hypothyroidism –

स्रोतोरोध बलभ्रंश गौरवानिल मूढता। आलस्यापक्ति

निष्ठीवन मलसंगअरुचि क्लमः॥ (A.H. Su. 13/23-24)

Clinical presentation of hypothyroidism includes symptoms like lethargy, fatigue,

weakness, heaviness in the body, sleepiness, hypochlorhydria, constipation, loss of appetite which denote presence of *Aamavastha* in the disease.

Ama also plays a role in pathogenesis. *Acharya Vagbhata*, described the general symptoms of *Ama* are: (A.H.Su.13/24) which may be correlated with features of Hypothyroidism.

Table no. 05: Showing the relation between the clinical manifestation of hypothyroidism and *Ama* lakshana:

General symptoms of <i>Ama</i>	Signs and symptoms of hypothyroidism
<i>Balabhramsha</i>	General Weakness
<i>Gaurav</i>	Feeling Of Heaviness of The Body
<i>Alaska</i>	Laziness
<i>Apakti</i>	Indigestion
<i>Malasanga</i>	Constipation
<i>Aruchi</i>	Anorexia
<i>Klama</i>	Lethargy

Concept of *Avarana* in hypothyroidism:

Avarana is a unique concept and the most difficult condition in *Ayurveda* to understand, analyze, and interpret by a physician. It is a condition that has been explained in the context of *Vata* disorders. *Avarana* means covering, enveloping, or enclosing. In this condition the 'free-flowing' and 'all-perading

Vata is obstructed and enveloped by *Pitta*, *Kapha*, tissues, food, and excreta. There are different types of *Avarana* mentioned in *Ayurveda* literature based on *Avruta* and *Avaraka*. Often the symptoms manifested are combined with disturbed function of the obstructing factor as well as obstructed *Vata*.

***Kaphaavritta Vata*:**

Symptoms quoted by *Acharya Charaka* in *Kaphavritta Vata* (when vitiated *Kapha* obstructs *Vata*) show similarity with the

clinical presentation of Hypothyroidism to some extent.

Table No. 06: Showing the relation between the clinical manifestation of Hypothyroidism and *lakshnas* of *Kapha-avrutta vata*

S. No.	Lakshana	Cha. 28/62	Chi. Su. Ni. 1/33	A. H.Ni. 16/32
1.	<i>Shaitya</i> (Cold intolerance)	+	+	+
2.	<i>Gauravta</i> (Weight gain)	+	+	+
3.	<i>Shoola</i> (Generalized ache)	+	-	+
4.	<i>Shopha</i> (edema)	-	+	-

Kapha-avritta saman vata

Saman vayu being located in the proximity of *agni*, kindles the fire and keeps it in a state of

balance. When *Kapha* surrounds *Samana vata*, the activities of *Saman vata* get disturbed and suppressed.

Table no. 07: Showing the relation between clinical manifestations of Hypothyroidism and *lakshnas* of *Kapha-avrutta Samana Vata*

S. No.	Lakshana	Ch. 28/226-227	Ch. Su.Ni. 1/37	A.H.Ni. 16/48
1.	<i>Aswedanam</i> (Loss of sweating)	+	-	+
2.	<i>Mandagni</i> (Loss of appetite)	+	-	+

Kaphavritta udana vata:

Kaphavrita udana is a condition wherein the aggravated *Kapha* envelopes *Udana Vata* and interferes with its functions. The thyroid gland is located in one of the regions of *Udana Vata*

i.e. throat and the seat of *Udana* is also the primary seat of *Kapha*. When *Kapha* surrounds *udana Vata*, the *udana vata* is blocked and subdued. Due to this thyroid gland produces fewer hormones. This will

cause deterioration of metabolism and these events mark the onset of hypothyroidism.

Table no. 08: Showing the relation between clinical manifestations of hypothyroidism and lakshnas of Kapha Avrutta Samana Vata

S. No.	Lakshanas	Ch. Chi. 28/244	Su.Ni. 1/36	A.H.Ni. 16/47
1.	<i>Vak-Swar-griha</i> (Hoarseness of voice)	+	-	+
2.	<i>Daurbalya</i> (weakness)	+	-	+
3.	<i>Aruchi</i> (loss of appetite)	+	-	+
4.	<i>Gurugatratvam</i> (Weight gain)	+	-	+

Sadhya-asadhyata:

According to *Ayurveda*, *Vyadhi* can be contemplated as *Krichasadhya*. Further studies are required for the confirmation of *Sadhya-Asadhyata*, while *Ayurvedic* treatments are adopted.

Chikitsa –

- **Nidana parivarjana** - Therefore, all the *Kapha-vatadosha* aggravating and *Agnimandyakarakaahaara-vihaara* should be avoided in Hypothyroidism.
- **Sanshodhana Chikitsa** - *Vamana Karma* (medicated emesis) is specially prescribed for *Kapha Dosh*", so amongst *Shodhana Chikitsa*, it may be effective for patients of hypothyroidism. *Virechana* (medicated purgation) can also be used if *Shotha* is a dominant feature. For proper evacuation of the bowel and to regularize *Agni*, *Niruha Basti* (medicated enema) should be administered. In *medovridhi* (dyslipidemia and obesity) conditions, *Lekhana Basti* (medicated enema) may also be given.
- **Samshamana Chikitsa –**

Specific herbs - *Kanchanar*, *Guggulu*, *Pippali*, *Trikatu*, *Triphala*, *Panchkola*, *Ashwagandha*, *Brahmi*, *Shigru* etc.

Specific formulations - *Kanchanar guggulu*, *Vyoshadi Guggulu*, *Medohara Guggulu*, *Guduchi ghan vati*, *Panchkula churna*, *Punarnava mandura*, *Jalkumbhi*, Grinded root of *Nirgundi* with water is used for *Nasya*.

➤ **Dietary and lifestyle modifications –**

- Iodine-rich foods such as fish, kinds of seafood, beetroot, kelp, parsley, oatmeal, etc. should be taken.
- Avoid Goitrogenic foods such as cabbage, cauliflower, broccoli, turnips, soybean products, peaches, pears, sweet potatoes, mustard, maize, cassava, etc. Also minimize Intake of Caffeine drinks like coffee, cola, and smoking.
- Diet should be high in fiber and low in calories. Salt intake should be kept at a minimum. Heavy, fried food and a high-sugar diet should be avoided.

- A sedentary lifestyle should be avoided. The patient should increase his physical activities. Aerobic exercises should be done regularly (increases tissue sensitivity to thyroid hormone and stimulates thyroid gland secretion).
- Physical and emotional stress should be reduced by doing Yoga and pranayam.

There are a number of herbs which are very effective in managing hypothyroidism. Kanchnar (*Bauhinia tormentosa*) is considered as a drug of choice in both enlargement of the thyroid as well as hypothyroidism. There are a number of herbs which are very effective in managing hypothyroidism. Kanchnar (*Bauhinia tormentosa*) is considered as a drug of choice in both enlargement of the thyroid as well as hypothyroidism.

- **Yoga** can also help in managing hypothyroidism with a few asanas and *pranayams*. Yoga *asanas* can help in strengthening muscles and also reduce the effects of hypothyroidism on the body. *Suryanamaskar*, *Naukasana*, *Matsyasana*, *Bhujangasana*, *Ustrasana*, *Halasana*, and *Sarvangasana* are among the asanas and *Suryabhedana*, *Anulom-Vilom*, and *Ujjayi* are among the beneficial *pranayams*.

Modern disease review –

The thyroid (shield-like) is an endocrine gland with a rich blood supply situated in the lower part of the front and sides of the neck. It regulates the basal metabolic rate, stimulates somatic and psychic growth, and plays an important role in calcium metabolism.

Hypothyroidism is a common condition of thyroid hormone deficiency. The definition of hypothyroidism is based on statistical reference ranges of the relevant biochemical parameters and is increasingly a matter of debate. Clinical manifestations of hypothyroidism range from life-threatening to no signs or symptoms.

Prevalence and risk factors –

The prevalence of overt hypothyroidism in the general population varies between 0–3% and 3–7% in the USA and between 0–2% and 5–3% in Europe, depending on the definition used. A meta-analysis of studies across nine European countries estimated the prevalence of undiagnosed hypothyroidism, including both overt and mild cases, at around 5%. Differences in iodine status affect the prevalence of hypothyroidism, which occurs more frequently both in populations with a relatively high iodine intake and severely iodine-deficient populations. Hypothyroidism occurs more frequently in women, in older people (>65 years), and in white individuals, although data on ethnic differences are scarce. Hypothyroidism is more common in patients with autoimmune diseases, such as type 1 diabetes, autoimmune gastric atrophy, and coeliac disease, and can occur as part of multiple autoimmune endocrinopathies. Individuals with Down's syndrome or Turner's

syndrome have an increased risk of hypothyroidism. By contrast, tobacco smoking and moderate alcohol intake are associated with a reduced risk of hypothyroidism.

Causes –

Hypothyroidism can be classified as primary (due to thyroid hormone deficiency), secondary (due to TSH deficiency), tertiary (due to thyrotropin-releasing hormone deficiency), and peripheral (extra-thyroidal; panel). Central hypothyroidism (including both secondary and tertiary) and peripheral hypothyroidism are rare and account for less than 1% of cases.

Symptoms –

The most common symptoms of hypothyroidism in adults are fatigue, lethargy, cold intolerance, weight gain, constipation, change in voice, and dry skin, but the clinical presentation can include a wide variety of symptoms that differ with age, sex, and time between onset and diagnosis.

Treatment –

The standard treatment is thyroid hormone replacement therapy with levothyroxine.

DISCUSSION

In this era, the lifestyle of people has changed. Due to the development and increased facilities, human life has become sedentary. The occurrence of Hypothyroidism on a large scale is one of the outcomes of this modification. This diseased condition is not specifically mentioned in *Samhita*. It is an *Avaranatmaka Vyadhi* and associated with *Sanga* and *Vimargagamana* type of pathogenesis. The disease is produced by the *Kapha* and *Vata* are the initiative factors for its pathogenesis. *Kapha*

Vridhi causes *Agnimandhya* the derangement of *Agni*. Primarily the *Samprapti* originates in the *Rasavaha* and *Medovaha Srotas*, then spreads through the *Bahya Roga Marga* with a special predilection for *Shleshmasthanas*. (*Su. Su.21/7*) and then it manifests as a systemic disease. Hypothyroidism is *Krichhasadhya* disease by its nature (*Ch. Su.11/17*). Hypothyroidism as such is not mentioned in *Ayurveda*, but with the help of its clinical presentation and *Dosha Dushya Siddhanta* of *Ayurveda*, it can be very well understood and managed. The signs and symptoms of Hypothyroidism mentioned in modern medicine show that *Kapha Dosha* plays a major role in this disease, secondly, the involvement of *Vata dosha* is also there. The signs and symptoms of Hypothyroidism are also correlated to *Dhatwagnimandhya*, *Ama Avarana*, etc. From the *Dhatu* point of view, it can be said that mainly the *Dushti* of *Rasadhatu* and *Medodhatu* are seen in Hypothyroidism. *Dhatvagnimandya* is also a major feature of this disease.

Looking at the symptoms; of malaise, lethargy, slow speech, slow pulse, low appetite, weight gain, thick skin, menorrhagia, macroglossia, goiter, and puffy eyes and face simply represent a *Kapha* vitiation. Similarly, symptoms like fatigue, constipation, muscle cramps, amenorrhea, PCOD, weakness, dry skin and hair, and hoarseness of the voice are classically associated with *Vata* vitiation. In light of the above discussion, the drugs that have their effect at the *Agni* level and possess *Kaphavatashamaka* properties are supposed to be ideal agents for treating hypothyroidism. The

dietary rules and proper lifestyle (*Dinacharya* and *Ritucharya*) as described in *Ayurvedic* texts should also be followed for proper control of Hypothyroidism. *Ayurveda* has advised three fundamental modalities to manage every disease i.e. *Nidana Parivarjana*, *Sanshodhana Chikitsa*, and *Sanshamana Chikitsa*.

Clinical presentation of hypothyroidism shows a resemblance with different clinical conditions described in *Ayurvedic* classics up to some extent. These include *Agnimandhya*, the concept of *Avarana*, the involvement of *Dhatu* and *Srotas*, the *Doshik* combination pattern, the production of *Ama*, etc.

CONCLUSION

Hypothyroidism is not described as such in *Ayurveda* and some scattered references having clinical features similar to that of with clinical presentation of hypothyroidism were considered in this study. An attempt has been made to describe its pathological condition on the basis of the *Doshika* combination pattern, *Dhatwagnimandya*, *Ama*, and concept of *Kaphaavrutta Vata* (*Kaphaavrutta Samana Vata*, *Kaphaavrutta Udana Vata*). Increasing the quantum and quality of *Agni* is the mainstay of treatment so drugs having *Deepana*, *Pachana*, *Lekhana*, *Kaphashamaka*, *Vatanulomaka*, and *Srotoshodhaka* properties seem to be effective in this condition along with dietary rules and proper lifestyle as described in *Ayurvedic* texts.

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