STUDY OF ETIOPATHOGENESIS OF HYPOTHYROIDISM WITH AYURVEDIC PERSPECTIVE

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ABSTRACT

Hypothyroidism is a clinical syndrome resulting from a deficiency of thyroid hormones. Current medical science is able to discover only few facts about mechanism of Hypothyroidism, but fails to understand its etiology completely. In Ayurved, there is no any direct reference of hypothyroidism. Eternal guidelines of Ayurved can help us to diagnose, control & cure the disease successfully. In the present study, we tried to find the Aharaj, Viharaj and Manasik Hetu of the Hypothyroidism and tried to find the pathogenesis of hypothyroidism in Ayurvedic perspective. Till date no work is carried out in context with etiopathogenesis in Ayurvedic perspective. The Hetu observed in this study, will be helpful for prevention of the disease. The pathogenesis in Ayurved perspective will help for the better treatment of hypothyroidism. Objectives: 1) To identify the Hetu’s (etiological factors) of the disease with Ayurvedic Perspective. 2) To recognize the Dosha-Dooshya Avastha, possible nature of Dosha-Dushti dominance, in the pathogenesis of Hypothyroidism. A special case paper was designed on the basis of data collected from literature search. T3, T4 and TSH were estimated at the time of enrollment. Rogi Pareeksha was done according to CRF. Ahara Vihara information of patient was collected as per questionnaire. Total 100 patients of Hypothyroidism were studied. Conclusions: Hypothyroidism was dominant in females, especially in housewives and in Kapha Vata & Vata Kapha Prakriti patients. In Ahara, Chicken, Fish, Mutton, Sunflower oil, Curd, Tea, Milkshake, Torai (Luffa acutangula Roxb.) and Palaka (Spinacia oleracea lin.), Shali and Vishamashan are contributing factors in the Samprapti of hypothyroidism. Among Viharaj Hetu Avyayam, Vegavarodha, Divaswap were contributing factors in the Samprapti of
Hypothyroidism. Among Manas Hetu, Chinta was predominantly observed in the Samprapti of Hypothyroidism. Hypothyroidism is a Kapha Vata Pradhan, Dwandwaja Vyadhi.

KEYWORDS Hypothyroidism, Etiopathogenesis, Hetu, Samprapti, Nonvegetarian, Curd.

INTRODUCTION
Hypothyroidism is a clinical syndrome resulting from a deficiency of thyroid hormones, which in turn results in a generalized slowing down of metabolic processes. Current medical science is able to discover only few facts about mechanism of Hypothyroidism, but fails to understand its etiology completely.

In Ayurved, there is no any direct reference of hypothyroidism. Eternal guidelines of Ayurved can help us to diagnose, control & cure the diseases successfully. In the present study, we tried to find the Aharaj, Viharaj and Manasik Hetu of the Hypothyroidism and tried to find the pathogenesis of hypothryoidism in Ayurvedic perspective.

The Hetu of Hypothyroidism found in our study will be helpful for prevention of the disease. The pathogenesis of hypothyroidism in Ayurvedic perspective will help for the treatment of hypothyroidism.

Aim & Objectives
Aim:
To study the etiopathogenesis of Hypothyroidism in Ayurvedic perspective.

Objectives:
1) To identify the Hetu’s (etiological factors) of the disease in Ayurvedic Perspective.
2) To recognize the Dosha-Dooshya Avastha, possible nature of Dosha-Dushti dominance, in the pathogenesis of Hypothyroidism.

MATERIALS AND METHODS
Study design: Cross Sectional Observational study for analysis of the newly diagnosed or known cases of Hypothyroidism.

Sample size: 100 patients of Hypothyroidism were selected for study.
Inclusion Criteria
1) Patients having only primary Hypothyroidism
2) Patients of age 20 to 50 years.
3) Patients of either sex.

Exclusion Criteria
1) Patients having other diseases existing together with primary Hypothyroidism 2) Subclinical Hypothyroidism
3) Patient with history of undergone Iodine 131 radiotherapy
4) Patient of Hypothyroidism secondary to pituitary disease
5) Patient with history of undergone Hormone Replacement Therapy (HRT).
6) Patients having HIV, Hb’s Ag positive

Plan of work
1) A specialized case paper was designed on the basis of data collected from literature search and approved by IEC.
2) Place of work: Bharati Ayurved Hospital, Dhankawadi, Pune-43.
3) T3, T4 and TSH were estimated at the time of enrollment. Written consent has been taken of willing patients.
4) Rogi Pareeksha was done according to CRF. Ahara Vihara information of patient was collected as per questionnaire.

RESULTS AND DISCUSSIONS
On the basis of theoretical & clinical information gathered, observations were noted. The data processing was aimed at:
1) To rule out general risk factors (Dosha Hetu)
2) To rule out for the nature of Dosha-Dushti, Kha-Vaigunya & Samoorchhana.
3) Try to establish the exact course of events as they occur during the genesis of the diseases (Samprapti).

Table No. 01: Age, Sex and Marital Status of patients

<table>
<thead>
<tr>
<th>Age</th>
<th>Sex</th>
<th>Marital status</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 to 35 years</td>
<td>54 %</td>
<td>Male 15%</td>
</tr>
<tr>
<td>35 to 50 years</td>
<td>46%</td>
<td>Females 85%</td>
</tr>
</tbody>
</table>

Married 81%  Unmarried 19%
Table No. 02: Relation of Lakshana and Dosha Dushti observed in patients

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Observed Lakshana in patients</th>
<th>Dosha Dushti</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Constipation (Vibandha) (64%)</td>
<td>Kosthashrayi Vata Prakopa[^3d]</td>
</tr>
<tr>
<td>2</td>
<td>Generalized weakness (62%)</td>
<td>Medogata Vataprakopa[^3e]</td>
</tr>
<tr>
<td>3</td>
<td>Cold intolerance (22%)</td>
<td>Kapha and Vata Prakopa[^3c]</td>
</tr>
<tr>
<td>4</td>
<td>Increased Hair fall (56%)</td>
<td>Vata Kapha Prakop vitiates Bhrajak Pitta &amp; Rakta[^5]</td>
</tr>
<tr>
<td>5</td>
<td>Weight gain (Sthoulya) (48%)</td>
<td>Kaphaprapakopa (Kledak)^[^3b]</td>
</tr>
<tr>
<td>6</td>
<td>Palpitation (35%)</td>
<td>Vataprapakopa[^1a]</td>
</tr>
<tr>
<td>7</td>
<td>Joint stiffness (32%)</td>
<td>Vataprapakopa[^3a]</td>
</tr>
<tr>
<td>8</td>
<td>Swelling (25%)</td>
<td>Kapha Prakopa[^1b]</td>
</tr>
</tbody>
</table>

Table no.03: Aaharaja Hetu, Non-veg Food

<table>
<thead>
<tr>
<th>Aahar Dravya</th>
<th>Rasa</th>
<th>Vipak</th>
<th>Guna</th>
<th>Effect on Doshas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken (70%) (Ashtang Sangraha Sutrasthan 6/65)</td>
<td>Madhur</td>
<td>Madhur</td>
<td>Guru, Snigdha</td>
<td>Kaphakar</td>
</tr>
<tr>
<td>Fish[^3f][^1c] (57%)</td>
<td>Madhur</td>
<td>Madhur</td>
<td>Guru</td>
<td>Kaphakar</td>
</tr>
<tr>
<td>Aja Mamsa[^3g] (Meat) (56%)</td>
<td>Madhur</td>
<td>Madhur</td>
<td>Guru, Snigdha</td>
<td>Kaphakar</td>
</tr>
</tbody>
</table>

Table no. 4: Effect of Aahar Dravya on Dosha

<table>
<thead>
<tr>
<th>Ahara Dravya</th>
<th>Rasa</th>
<th>Virya</th>
<th>Vipaka</th>
<th>Prabhava</th>
<th>Guna</th>
<th>Effect on Doshas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dadhi[^5a] (95%)</td>
<td>Madhur</td>
<td>Sheet</td>
<td>Madhur</td>
<td>Medovruddhi</td>
<td>Snigdha, Abhishyandi</td>
<td>Kaphaprapakopak</td>
</tr>
<tr>
<td>Green vegetables 1) Torai[^2a] (Luffa acutangula Roxb.)</td>
<td>Madhur</td>
<td>Sheet</td>
<td>Madhur</td>
<td>Guru</td>
<td>Kapha, Vata Prakop</td>
<td>Kapha, Vata Prakopak</td>
</tr>
<tr>
<td>2) Palak[^2b] (Spinacia oleracea lin.)</td>
<td>Kashay</td>
<td>Sheet</td>
<td>Madhur</td>
<td>Guru</td>
<td>Kapha Prakopak</td>
<td>Kapha Prakopak</td>
</tr>
<tr>
<td>Cereals[^3b] (Shuka-Dhanya) (99%)</td>
<td>Madhur</td>
<td>Sheet</td>
<td>Madhur</td>
<td>Snigdha</td>
<td>Kapha Prakopak</td>
<td></td>
</tr>
<tr>
<td>Sunflower oil (82%)</td>
<td>Madhur</td>
<td>Sheet</td>
<td>Madhur</td>
<td>Snigdha</td>
<td>Kapha Prakopak</td>
<td></td>
</tr>
</tbody>
</table>

Table No.05: Effect of tea on Dosha

<table>
<thead>
<tr>
<th>Dravya</th>
<th>Rasa</th>
<th>Vipak</th>
<th>Guna</th>
<th>Effect on Doshas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tea 95%)</td>
<td>Kashaya[^2c]</td>
<td>Katu</td>
<td>Ruksha, Sheet</td>
<td>Vata Prakop[^j]</td>
</tr>
</tbody>
</table>
Table No.06: Effect of milkshake on Dosha

<table>
<thead>
<tr>
<th>Ahaar Dravya</th>
<th>Rasa</th>
<th>Virya</th>
<th>Vipak</th>
<th>Prabhav</th>
<th>Guna</th>
<th>Effect on Doshas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit+Milk&lt;sup&gt;[3j]&lt;/sup&gt; (Milkshake) (74%)</td>
<td>Madhur</td>
<td>Sheet</td>
<td>Madhur</td>
<td>Galagrah</td>
<td>Viruddhanna</td>
<td>Kapha Prakopak</td>
</tr>
</tbody>
</table>

Table No.07: Effect of Vishamashan on Dosha

<table>
<thead>
<tr>
<th>Ahaar Dravya</th>
<th>Effect on Doshas</th>
<th>Effect on Avayavas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vishamashan&lt;sup&gt;[5b]&lt;/sup&gt; (67%)</td>
<td>Vataprapakop</td>
<td>Grahani dusthi</td>
</tr>
</tbody>
</table>

Table No.08: Effect of Vihar on Dosha, Dhatu and Avayava

<table>
<thead>
<tr>
<th>Vihar</th>
<th>Effect on Dosa</th>
<th>Effect on Dhatu</th>
<th>Effect on Avayava</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avyayam&lt;sup&gt;[3j]&lt;/sup&gt; (73%)</td>
<td>Kaphavrudhi</td>
<td>Medovruddhi</td>
<td></td>
</tr>
<tr>
<td>Divaswapa&lt;sup&gt;[5c]&lt;/sup&gt; (61%)</td>
<td>Kaphaprapakop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegavarodha&lt;sup&gt;[3k]&lt;/sup&gt; (61%)</td>
<td>Vataprapakop</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Graph No.01 Division of Patients according to occupation

Graph No.02 Division of patients according to Prakruti:
Division of patients according to TSH levels:

Graph No.03

- Normal TSH Value 0.4 to 4 uIU/ml
  - 75%
- 04 to 12
- 12.1 to 20
- 20.1 to 28
- 28.1 to 36
- 36.1 and above

Lakshana of hypothyroidism seen in the patients

Graph No.04

- Constipation
  - 64%
- Generalized weakness
  - 62%
- Increased heart rate
  - 49%
- Weight gain
  - 48%
- Palpitation
  - 35%
- Joint stiffness
  - 32%
- Swelling
  - 25%
- Cold intolerance
  - 21%

Graph No.05 Division of patients according to diet

- 62%
- 38%
Division of patients according to type of Non-veg. food

Graph No.06

<table>
<thead>
<tr>
<th>Food</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat</td>
<td>56%</td>
</tr>
<tr>
<td>Chicken</td>
<td>70%</td>
</tr>
<tr>
<td>Fish</td>
<td>57%</td>
</tr>
<tr>
<td>Egg</td>
<td>68%</td>
</tr>
</tbody>
</table>

Percentage of Ahar Ghataka contributing in Hypothyroidism Samprapti

Graph No.07

<table>
<thead>
<tr>
<th>Food</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dadhi</td>
<td>95%</td>
</tr>
<tr>
<td>Torai</td>
<td>62%</td>
</tr>
<tr>
<td>Palak</td>
<td>56%</td>
</tr>
<tr>
<td>Shali</td>
<td>62%</td>
</tr>
<tr>
<td>Milkshake</td>
<td>74%</td>
</tr>
</tbody>
</table>

Table showing the type of edible oil used by patients in present study

Graph No.08

<table>
<thead>
<tr>
<th>Oil</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunflower</td>
<td>82%</td>
</tr>
<tr>
<td>Groundnut</td>
<td>34%</td>
</tr>
<tr>
<td>Coconut</td>
<td>6%</td>
</tr>
<tr>
<td>Karadai</td>
<td>2%</td>
</tr>
<tr>
<td>Mohari</td>
<td>2%</td>
</tr>
</tbody>
</table>
Graph No.09 Division of patients according to consumption of Tea

Graph No.10 Division of patients according to Aahar Sevan Kaal:

Graph No.11 Division of Viharaj Hetu observed in the present study
Statistical Tests applied are

1) Frequency percentage tables
2) Chi-square test: [6]

\[
H_0 = \text{equally distributed, } H_a = \text{not equally distributed}
\]

\[
X^2 = \sum \frac{(O_i - E_i)^2}{E_i}
\]

If \(X^2\) calculated > \(X^2\) table, then reject \(H_0\), accept \(H_a\).

DISCUSSION

Age

54 %. Patients were between age group of 20 yrs to 35 yrs and 46% patients were between age group 35 yrs to 50 yrs. (Graph no.1)
Sex
85% Females were affected, As Aharaj Hetu like Dadhi Sevan, Tea, Vishamashan, Upavas, Viharaj Hetu Diwaswap, Avyayam and Manasik Hetu Chinta, Bhaya, Shoka were predisposing factors for hypothyroidism in females. (Graph no.1)

Marital status
81 % married patients were observed. It may be due to irregular timing of diet (Vishamashan), lack of exercise, family responsibilities, various types of stress may lead to hypothyroidism. (See Graph no.1)

Occupation
Housewives (48%) were prominently observed suffering from hypothyroidism. Viruddhashan, Viharaj Hetu Diwaswap, Lack of exercise, Mansik Hetu Chinta were contributing factors in Housewives for hypothyroidism. 36 % Government employees were seen, it may be due to lack of exercise, excessive tea, Manasik Hetu Bhaya, Chinta. Students were also observed suffering from hypothyroidism. Viruddhashan, Vishamashan, Atisevan of Kapha Vatakar Ahaar, Avyayam, Chinta, Bhaya were the contributing factors in students for hypothyroidism. (See Graph no.1)

Prakruti
Hypothyroidism was predominantly observed in Kapha Pradhan Vata and Vata Pradhan Kapha Prakruti. It may be due to similar Dosha in Prakruti of patient and Samprapti of hypothyroidism. (See Graph no.2)

TSH levels
As per criteria newly diagnosed patients of hypothyroidism were selected. TSH levels of 75% patients were between 4 to 12 u IU/ml. It helped to observe the Samprapti Ghataka of hypothyroidism before complications of disease. As disease progresses, Rugnabala may get reduced, which may leads to complications. It is difficult to understand the Samprapti of hypothyroidism when complications develop in the patients. (See Graph no.3)

Lakshana
Vata and Kapha Dosha gets vitiated and shows the symptoms of Vata and Kapha Dosha. Lakshana produced by the Dustha Dosha in hypothyroidism patients are shown in Table no 2. And Graph no.4.
Aaharaja Hetu; Non-veg Food
In the present study, 62% patients observed consuming mixed food. In non-veg. food, mainly chicken, fish, meat were consumed. All of these, non-veg food are having Madhur Ras, Madhur Vipak and having Guru, Snigdha Guna. Aja Mamsa\[^1\,][\text{[c]}\] is Sheet Viryatmak.\[^2\,][\text{[6]}\]. So the non-veg. food consumption leads to Kapha Dosha Vruddhi, which mainly contributes to the Samprapti of Hypothroidism as shown in Table no. 3. And Graph no. 5, 6
Using Chi-square test, X^2_2 calculated 5.76 > X^2_2 table 3.84.
Non-veg food contributes in the Samprapti of Hypothyroidism

Dadhi Sevan
Acharya Sushruta described that sweet curd increases the slimy secretions of the organs and quantity of Meda and Kapha in the body.\[^1\] (See Graph no 7).
X^2_2 calculated 81 > X^2_2 table 3.84
Dadhi was contributing factor in the Samprapti of Hypothyroidism.

Green vegetables
62% Patients observed consuming Torai and in 61% Palak. Its Prabhava is to impair function of Galapradehs Granthi and may lead to Galagand.\[^5\,][\text{[3]}\] (See Graph no 7).
Torai= X^2_2 calculated 5.76 > X^2_2 table 3.84, Palak= X^2_2 calculated 4.84 > X^2_2 table 3.84
Torai, Palak were contributing factor in the Samprapti of Hypothyroidism

Shali (Rice)
In 62 % patients were observed consumption of Shali. Acc. to Charak Samhita, Sutra Sthan 27/10, Cereals are Madhura, Kashay Rasatmak, Sheet Virya, Madhur Vipaki and Snigdha Gunatmak. Thus it vitiates Kapha, Vata Dosha and contributes in the Samprapti of Hypothyroidism.
X^2_2 calculated 5.76 > X^2_2 table 3.84
Shali was contributing factor in the Samprapti of Hypothyroidism. (See Graph no 7).

Sunflower oil
It vitiates Kapha Dosha due to Madhur Rasa, Sheet Virya.\[^4\]
X^2_2 calculated 40.96 > X^2_2 table 3.84 Sunflower oil was contributing factor in the Samprapti of Hypothyroidism. (Table no.4 and Graph no.8)
Tea
Excessive tea consumption was observed in 95% patients. Tea[^2c] is Kashaya Rasatmaka and Ruksha, Sheet Gunatmaka. It vitiates Vata Dosha and contributes in the Samprapti of Hypothyroidism. (Table no. 5 and Graph no. 9)
X^2 calculated 81 > X^2 table 3.84

According to Guna
Viruddahara: Fruit and milk
74% of patients were observed consuming fruit and milk (Milkshake). Incompatibility by combination of fruit and milk leads to Spasmodic obstruction in throat[^3][^5d]. It vitiates Kapha and thus contributes in the Samprapti. (Table no. 6)
X^2 calculated 23.04 > X^2 table 3.84
So Fruit + Milk was contributing factor in the Samprapti of Hypothyroidism

According to Aahar Sevan Kaal
Vishamashan
In 67% patients observed Vishamashana which causes Malavahasroto Dushti. A meal taken at an hour long after the appointed time tends to aggravate the Vata Dosha. It affects Jatharagni, leads to Agnimandya and forms Aam. (Table no 7 and Graph no. 10)
X^2 calculated 11.56 > X^2 table 3.84

According to Rasa Pradhanya
80% patients consuming Madhur Rasatmak and 20% Kashay Rasatmak Ahar Ghataka were observed contributing factors of hypothyroidism. Among Ahar Ghataka statistically significant Chicken, fish, Aja Mamsa, Dadhi, Torai, Shali, Sunflower oil, Milkshakes are Madhur Rasatmak and Palak, Tea are Kashay Rasatmak. Madhur rasa vitiates Kapha Dosha. Kashay Ras vitiates Vata Dosha.

Avyayam: Avayam Hetu was observed in 73% patients. It vitiates Kapha Dosha[^3] (Graph No. 11)
X^2 calculated 21.16 > X^2 table 3.84.

Diwaswapa: was observed in 61% patients, which leads to Kapha Vrudhi and.[^12] (Graph No. 11)
X^2 calculated 21.16 > X^2 table 3.84.
**Vegavarodha:** Seen in 61% patients. It vitiates Vata Dosha. *(Table no 8)*

$X^2$ calculated $4.84 > X^2$ table 3.84.

Diwaswap, Avyayam and Vegavarodha lead to Kapha and Vata Dosha Vitiation and contribute in the Samprapti of Hypothyroidism.

**Manasa Hetu ; Chinta:** Seen in 68% patients It vitiates Vata Dosha. *(Graph No. 12)*

$X^2$ calculated $12.96 > X^2$ table 3.84. Chinta was contributing factor of hypothyroidism.

**Samprapti**

**I] Doshavastha in Hypothyroidism**

In present study, Weight gain, Cold intolerance, excessive hair fall, swellings were observed. These are Lakshana of Kapha Prakop.Granthokta Kapha Prakopaka Lakshana Shaitya, Gauravata, Sthoulya, Aalasya, Shwasa, Aghisad, Kandu, Shopha (oedema), Atinidra, Chirakarita (Chronic), Sthairya (Stability) (The disease doesn’t worsen) were also described in modern science as Lakshana of hypothyroidism.

In present study, Constipation, Cold intolerance, generalized weakness, joint stiffness, increased hair fall, palpitation were observed. These are Lakshana of Vata Prakop.

Granthokta Vata Prakopaka Lakshana Twakarukshata, Alpabala, Astishool, Aadhmana, Aatopa, Moha, Bhrama and Bhaya are described in modern medicine as Lakshana of Hypothyroidism.

**II] Dhatu Dusti in hypothyroidism**

**Rasa Dhatu Vruddhi**

Rasa Dhatu Vruddhi Lakshana are same as Kapha Dosha Vruddhi Lakshana. Kapha Dosha Vruddhi Lakshana Shaitya, Gauravata, Sthoulya, Shopha (oedema) were observed in the present study.

Granthokta Rasa Dhatu Vruddhi Lakshana Aalasya, Shwasa, Aghisad, Kandu, Atinidra, Chirkarita (Chronic), Sthairya (Stability) (The disease doesn’t worsen), Hrudayodkled are also described in modern medical science as Lakshana of hypothyroidism.

**Medo Dhatu Vruddhi:** Udar-Parshwa Vrudhi was observed in the present study. Granthokta Medo Dhatu Vruddhi Lakshan Shwasa is explained in modern medical science as Lakshan of Hypothyroidism.
III] Srotas Dusti Hetu

Pranavaha Srotasa Dusti_Hetu; Vegavidharan (61%), Ruksha Aahar sevan (Tea-95%), Medovruddhi (48%) were observed in the present study. (See Graph No. 13)

Annavaha & Rasavaha Srotasa Dusti_Hetu[^3]; Vishamashan(67%),Guru, Sheet, Ati Snigdha Aahar Sevan(Rice 62%, Dadhi95%, Sunflower oil 82%, Chicken 70%, Meat 56%) leads to Srotavarodha.

Medovahasrotas Dusti_Hetu[^3]; Divaswap(61%), Avyayam(73%), Snigdha, Medhovardhak (Rice 62%, Dadhi95%, Sunflower oil 82%, Chicken 70%, Meat 56%) Aahar Sevan.

Majjavahasrotas Dusti Hetu; Viruddhana, Guru Ahaar

Purishavaha Srotodusti; Hetu-Vegavidharan

Swedavaha Srotodusti[^1e]; Hetu- Viruddhanna Sevan Shoka, Bhaya.
Sweda Kshaya Lakshana- Keshapatan, Twak Rukshata

Artavavaha Srotodusti; Hetu-Snigdha Aahar, Non-veg food, Dadhi vitiates Vata Dosha and does Artavavaha Srotodusti.

Kapha and Vata Dosha are vitiated by Aaharadi Hetu. Rasadi Dhatus are vitiated by the aggravated Doshas. Mala Dusti is seen due to Vitiated Rasadi Dhatu.

IV] Agnimandya (Due to Kapha Dosha Prakopa)[^9]

Hetu seen are Irregular time of taking food, Chinta and Vegavidharan.

Lakshana seen are Gouravata, Swaskruchrata

Srotas: Annavaha, Rasavaha, Medovaha, Majjavaha, Pranavaha, Purishavaha and Swedavaha.
Agni: Jatharagnimandya, Meda Dhatwagnimandya, Ras Dhatwagnimandya.
Mala: Purisha, Sweda, Ojas : Vishramsa, Vyadhi Swabhava: Chirakari
Vyadhi Marga; Madhyam Marga.

Hypothyroidism is a Prakruti Samsamavaya Vyadhi. It is Dwandwaj Vyadhi as it represents the simultaneous affection of two Dosha i.e.Vata and Kapha.
Samprapti

Hetu Sevan

**Kapha** (Kledak) (Ajirna) & **Vata Prakop** Prana (Swas), Udan (Urdhwajatrugatvikar)
Saman (Agnimandya) Vyan (Sarvadehavyapi Vikar) Apan (Vibandha)

Agnimandya (Saman Vayu Dusti)

Aama

**Srortorodha** (Swedakshay)

Vitiated Vata (Udan) takes the Dushta Kapha to Galapradesh
(Hrtpida, Rukashata, Shabda Asahishnuta)

Galapradesh Khavaigunya

Galapradesh SthanSanshray

Dhatwagnimandya

Ras Dhatu Vikruti
(Sandhishaithilya, Shrama, Asamyak Kayika, Vachik, Mansik Kriya)

Uttarottar Dhatu Vikruti

Ojo Vyapat (Dushti)

Hypothyroidism

**CONCLUSIONS**

- Prevalence of Hypothyroidism is more in Females and Married patients.
- Vata Kapha and Kapha Vata Prakruti patients are more prone to Hypothyroidism.
- Incidence of housewives is very common suffering from Hypothyroidism.
Mixed type of food is a dominant Hetu in Hypothyroidism

Excessive consumption of Madura, Kashaya and Lavan Rasatmak Aahar is a contributing factor in the Samprapti of hypothyroidism.

Chicken, Fish, Mutton, Sunflower oil, Curd, Tea, Milkshake, Torai (Luffa acutangula Roxb.) and Palaka\(^1\) (Spinacia oleracea lin.), Shali Ahaar Ghataka are contributing factors in the Samprapti of hypothyroidism.

Vishamashan is contributing factor of Samprapti of hypothyroidism.

Among Viharaj Hetu Avyayam, Vegavarodha, Divaswap are contributing factors in the Samprapti of Hypothyroidism.

Among Manas Hetu, excessive Chinta is contributing factor in the Samprapti of Hypothyroidism.

The main Lakshana seen in the patients of our study are Constipation, Generalized weakness, Increased hair fall, Weight gain, Palpitation, Joint stiffness, periorbital swelling in morning hours.

Hypothyroidism is a Kapha Vata Pradhan, Dwandwaja Vyadhi.

**Samprapti Ghatakas**

- **Dosha**: Kapha Vata, Dhatu: Rasa, Meda, Majja.
- **Srotas**: Annavaha, Rasavaha, Medovaha, Majjavaha, Pranavaha, Purishavaha, Swedavaha and Artawaharaha.
- **Agni**: Jatharagnimandya, Meda Dhatwagnimandya, Ras Dhatwagnimandya.
- **Mala**: Purisha, Sweda, Ojas : Vishramsa, Vyadhi Swabhava: Chirakari

Hypothyroidism is a Prakruti Samsamavaya Vyadhi. It is Dwandwaj Vyadhi as it represents the simultaneous affection of two Dosha i.e.Vata and Kapha.

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