

## THE EFFECT OF VIRECHANA KARMA IN HYPOTHYROIDISM - A CASE STUDY

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### ABSTRACT

The prevalence of metabolic diseases increasing day by day due to change in lifestyle and faulty dietary habits. Due to this, people have to face so many problems like metabolic and hormonal imbalance such as Hypothyroidism. Women are affected approximately six times more frequently than men. In Ayurveda, *Galganda* is one of the *Vyadhi* of *Galagat Roga*. *Dosh-Dushya Samurchhna* in *Galganda* is to be similar as hypothyroidism. Hypothyroidism cannot be directly correlated with any disease explained in Ayurveda; such type of disease considered as *Anukta Vyadhi*. Although Hypothyroidism is treated as *Anukta Vyadhi* in Ayurveda but *Galganda* is having similar *Dosh-Dushya Samurchhana*. So that, the principle of *Chikitsa* may be decided as per

treatment of *Galganda* in Ayurvedic perspectives. Pathogenesis of Hypothyroidism may be due to hypo-functioning of *Jatharagni* and *Dhatwagni* which alter the physiology. *Dosh Dusti* in hypothyroidism is *Kapha* associated with *Pitta* and vitiation of *Vayu* due to *Margavarana* was observed. Involvement of *Rasavaha*, *Annavaha*, and *Medovaha Strotodusti* are predominantly found. By considering these principles, the present article deals with a newly diagnosed case of hypothyroidism treated with *Virechana Chikitsa* in which encouraging result was found and presented in full paper. Here, a humble effort was made to treat a 38 years old female patient having complaints of *Kshudhamandya*, *Aruchi*, *Hrullas*, *Sharirbharvruddhi*, *Angagauravata*, *Ubhaya Pada Shotha*, *Ubhaya Janusandhi Shula* was

managed with *Pachana* and *Snehapanottar Virechana Chikitsa*. Significant results were observed on objective parameter like thyroid function test, lipid profile, kidney function test. Assessment shows maximum improvement in subjective parameters like lethargy, weight gain, hair fall, fascial puffiness, fatigue and breathlessness in this case of Hypothyroidism. *Pachana* and *Virechana Chikitsa* was effective in this case of Hypothyroidism. Such type of management will be carried out on large scale for goodness of research community and mankind.

**KEYWORDS:** Hypothyroidism, *Pachana*, *Amrutadi-Tailpana*, *Virechana Karma*, Ayurveda.

## INTRODUCTION

Hypothyroidism, also called underactive thyroid or low thyroid, is a disorder of the endocrine system in which the thyroid gland does not produce enough thyroid hormone.<sup>[1]</sup> The signs and symptoms of hypothyroidism vary, depending on the severity of the hormone deficiency. Problems tend to develop slowly, often over a number of years.<sup>[2]</sup>

Hypothyroidism may not cause noticeable symptoms in the early stages. Over time, untreated hypothyroidism can cause a number of health problems, such as obesity, joint pain, infertility and heart disease.<sup>[1]</sup> Subclinical hypothyroidism, a milder form of hypothyroidism characterized by normal thyroxin levels and an elevated TSH level.<sup>[1]</sup> Hypothyroidism is more common in women than men. People over the age of 60 are more commonly affected. Worldwide about one billion people are estimated to be iodine deficient; however, it is unknown how often this results in hypothyroidism. Iodine deficiency is the most common cause of primary hypothyroidism and endemic goitre worldwide. In areas of the world with sufficient dietary iodine, hypothyroidism is most commonly caused by the autoimmune disease hashimoto's thyroiditis (chronic autoimmune thyroiditis). People with hypothyroidism often have no or only mild symptoms. Numerous symptoms and signs are associated with hypothyroidism, and can be related to the underlying cause, or a direct effect of having not enough thyroid hormones. Hashimoto's thyroiditis may present with the mass effect of a goiter (enlarged thyroid gland). Treatment with levothyroxine will likely be lifelong, but because the dosage you need may change and to check your TSH level every year.<sup>[1,2]</sup>

There is no direct reference of Thyroid in Ayurveda classics. The analysis of the symptomatology of Hypothyroidism in the light of Ayurveda showed that in this disease the

dominance of *Kapha* and *Pitta* with vitiation of *Vayu* due to *Margavarana* and predominantly *Annavaha*, *Rasavaha* and *Medovaha Strotodushti* with the *Dushti* of *Rasa*, *Medo Dhatu* may be considered as the responsible factor for disease.<sup>[3]</sup> *Virechana* is the best therapy for regulation of *Pitta Dosha*, *Pitta* associated with *Kapha* or *Vata* and for *Dosha* situated in *Pitta Sthana*.<sup>[4]</sup> In Hypothyroidism *Rasa Dhatu Dushti* is also takes place. *Langhana* is a line of treatment for *Rasaj Vikara* and *Virechana* is a type of *Langhana* therefore *Virechana* is pacifies the symptoms related to *Rasa Dhatudushti*.<sup>[5]</sup> More over the first outcome of *Shodhana* is *Kayagnidipti*.<sup>[6]</sup> Considering all the facts in present study has been planned to assess the effect of *Virechana Karma* in the management of Hypothyroidism.

## MATERIAL AND METHODS

### Case Report

A 38year old female patient having following complaints was came in OPD and admitted in IPD of Kayachikitsa Department, Government Ayurveda College, Nagpur.

### Chief Complaints

- |   |   |                  |
|---|---|------------------|
| 1. <i>Sharirbharvruddhi</i>               | } | Since 2- 3 year  |
| 2. <i>Ubhaya Janusandhi Shula</i>         |   |                  |
| 3. <i>Dakshin Pada Shula</i>              |   |                  |
| 4. <i>Ubhaya Hasta-Pada Daha</i>          |   |                  |
| 5. <i>Chankramana, Utkatasana Kastata</i> |   |                  |
| 6. <i>Kshudhamandya</i>                   |   |                  |
| 7. <i>Daurbalya</i>                       |   |                  |
| 8. <i>Aruchi</i>                          | } | Since 1 year     |
| 9. <i>Hrullas</i>                         |   |                  |
| 10. <i>Angagauravata</i>                  |   |                  |
| 11. <i>Khalitya</i>                       |   |                  |
| 12. <i>Asamyak Malprvrutti</i>            |   |                  |
| 13. <i>Ubhaya Pada Shotha</i>             |   | since 8- 15 days |

### History of Present Illness

Patient having gradually increase in above symptoms from 2-3 years, so for treatment patient get admitted in Government Ayurveda College and Hospital, Nagpur.

**Past History**

1. No H/O Hypertension, DM, Hypothyroidism, Bronchial Asthma
2. H/O fall on Right Knee at home – 6 months back.
3. H/O PV bleeding 2 Years back.
4. H/O Fever with Chills- 3 months back.
5. No history of any other illness.

**Family History**

No specific history

***Ashtavidha Parikshana***

1. Nadi -94/min
2. *Mala – Samyaka*
3. *Mutra – Samyaka*
4. *Jivha- Sama*
5. *Shabda - Spashta*
6. *Sparsha – Samashitoshna*
7. *Drika – Spashta*
8. *Aakriti – Sthula*
9. *Praman – Weight- 76 kg*
10. Height – 154 cm
11. BMI – 32

***Vikrut Strotas Parikshana***

1. *Rasavaha Strotas – Kshudhamandya, Aruchi, Tandra, Gauravata, Angamarda, Panduta*
2. *Mansvaha Strotas - Sakasta Chankramana*
3. *Medovaha Strotas - Stanodar Lambanam, Sharirbharvruddhi*
4. *Asthivaha Strotas - Ubhaya Janusandhi Shula, Dakshin Pada Shula, Katishula, Sakasta Chankramana,*
5. *Majjavaha Strotas - Tama, Bhrama.*

**Investigations**

10/06/2019

1. CBC: Hb% - 10.7 gm % ESR – 24, TLC- 7500, Platelet- 301000
2. BSL: Fasting-78 mg/dl

PP-121 mg/dl

3. KFT: Blood Urea - 20.8 mg/dl, Sr. creatinine – 1.47 mg/dl, Uric acid -4.5 mg/dl

4. Lipid Profile: Triglyceride –296, Cholesterol – 155, HDL –49.8

5. LFT: SGOT-36.9 U/L, SGPT-36.9, T. Bil- 0.40 mg/dl, D. Bil- 0.07 mg/dl

6. Urine Report: A/B – Nil, Sugar – Nil, ME – NAD

08/06/2019

7. TFT: T3 – 92 ng/dl T4 –5.02 ug/dl, TSH – 10.60 uIU/dl

12/06/2019

8. **2D Echo**-No LV RWMA, LVEF 60%, Grade 1 Diastolic Dysfunction, Mild Concentric LVH

15/06/2019

9. Urine Microalbumin- 20.57 ug/ml

Creatine- Urine- 272.99 mg/dl

09/07/2019

10. TFT: T3 – 94 ng/dl T4 –6 ug/dl, TSH – 6.05 uIU/dl

## **ASSESSMENT CRITERIA**

### **Objective Criteria**

It will be assessed as per given in diagnostic criteria

### **Physical characters**

1. Weight
2. BMI
3. Waist circumference
4. Hip circumference
5. Waist hip ratio

### **Biochemical parameters**

Lipid profile, Thyroid Function Test, Kidney Function Test.

### Subjective Criteria

The signs and symptoms of Hypothyroidism which are subjective in nature are used for symptomatic evaluation for which a multidimensional scoring pattern was adopted. This scoring system mentioned by Bansal R. (2013) in her P.G thesis will be followed so as to maintain uniformity in evolution of effects.<sup>[7]</sup>

### MANAGEMENT

#### *Pachan Chikitsa*

Initially *Pachan Kwath*- 40 ml *Vyanodane* is given as a *Pachak* for 7 days.<sup>[8]</sup>

#### *Shodhan Chikitsa*

*Snehapana*- with *Amrutadi Tailpana* for 4 Days.<sup>[9]</sup>

**Table no 1: Snehapana chart.**

Date	Day	Time	Matra	Kshudha kala	Bhojan Kala
26.6.19	Day 1	6.15 am	30 ml	2.00 pm	2.30 pm
27.6.19	Day 2	6.15 am	45 ml	2.30 pm	3.00 pm
28.6.19	Day 3	6.00 am	60 ml	4.30 pm	4.30 pm
29.6.19	Day 4	5.50 am	75 ml	3.00 pm	3.30 pm

Rest day from 30.6.19 to 2.7.19– *Sarvanga Snehana*, *Swedan*.

*Virechana Karma* – on 3.7.19

1. *Ichhabhedi Rasa*<sup>[10]</sup> 250 mg 1tab stat (8.00am)
2. *Shitajalapan Muhurmuhu*
3. *Mrudvika Phanta Muhurmuhu*

**Table no 2: Showing Virechana Vega.**

Time	Veg			Pulse /min	BP Mm of Hg	Other Symptoms
	Pravar	Madhyam	Avar			
9.00 am			1	80	110/70	<i>Chardi</i>
9.30am						<i>Chardi</i>
10.30 am		1				<i>Chardi</i>
10.45Am		1				
11.05Am						
11.30Am		1		78	120/70	<i>Hrullas</i>
11.45Am		1				
11.50Am	1					
12.00 pm	1					
12.05pm	1					
12.15pm	1					
12.25pm	1			76	120/80	<i>Udarshula</i>

12.38 pm	1					
12.45pm	1					
12.52pm	1					
1.05 pm		1				
1.25 pm				80	120/80	
1.45 pm		1				
2.07 pm			1			
2.20 pm		1				
2.32 pm						
2.55 pm		1		74	130/90	<i>Shirshula</i>
3.13 pm		1				
3.36 pm			1			
3.50 pm		1		68	120/80	
4.25 pm	1					<i>Giddiness</i>
4.45 pm		1		74	130/90	
5.00 pm		1				
5.30 pm		1				<i>Shirshula, Daurbalya, Bharamaprachiti</i>
5.50 pm		1				<i>Gudadaha</i>
6.45 pm			1			
7.15 pm			1	64	130/80	<i>Shirshula</i>

To stop the *Virechana Vega*, *Koshnajalapana* started since 7.00 pm

### **Shuddhi**

*Antiki – Kaphanta*

*Laingiki – Daurbalya, Udarlaghavata,*

*Madhyam Shudhi*

*Sansarjana Krama: for 7 days*<sup>[11]</sup>

### **Sthanik Chikitsa**

*Arthorub Tail* for Local application.

*Janudhara* with *Nirgundi Tail* OD

*Dashanga Lepa* For Local application OD.

### **OBSERVATION**

**Table no 3: Table showing effect of therapy on TFT.**

Date	8.6.19 (Before)	9.7.19 (After)
T 3	92	94
T 4	5.02	6
TSH	10.60	6.05

**Table no 4: Table showing effect of therapy on Lipid Profile.**

Date	10.6.19 (Before)	24.6.19 (After)
Cholesterol	155	82
Triglyceride	296	120
HDL	49.8	44.8

**Table no 5: Table showing effect of therapy on BMI.**

Date	Height	Weight	BMI
11.6.19	154 cm	77 kg	32.47
24.6.19	154 cm	75 kg	31.62
4.7.19	154 cm	71 kg	29.94

**Table no 6: Table showing effect of therapy on W: H Ratio.**

Date	Waist	Hip	W:H Ratio
11.6.19	111	120	0.92
24.6.19	109	120	0.90
4.7.19	103 cm	118cm	0.87

**Gradation of symptoms of Hypothyroidism.****1. Puffiness of face and eye lid**

Date		11.6.19	30.6.19	10.7.19
Absent	0	1	0	0
Occasional	1			
Daily, Periorbital edema/ Puffiness in the early morning	2			
Persistent	3			

**2. Bilateral Peripheral Edema**

Date				
No Edema	0	1	1	0
Edema on lower/upper extremities	1			
Edema on both lower and upper extremities	2			
Edema on all over body	3			

**3. Dry skin and Coarse skin**

Date				
No dryness	0	1	0	0
Dryness after bath only	1			
Dryness whole day but relieved by oil application	2			
Dryness not even relieved by oil application	3			



**4. Breathlessness**

Date				
Absent	0	1	1	0
Occasionally, only after strenuous workout	1			
Even on climbing upstairs, but relieved by rest	2			
Felt in routine work- bathing, changing cloth	3			

**5. Cold intolerance**

<b>Date</b>				
Absent	0	0	0	0
Mild	1			
Moderate	2			
Severe	3			

**6. Hoarseness of Voice**

<b>Date</b>				
Absent	0	0	0	0
Mild	1			
Moderate	2			
Severe	3			

**7. Lethargy**

<b>Date</b>				
Doing work satisfactorily with proper vigor in time	0	1	1	0
Doing work without desire, satisfactorily but in time	1			
Doing work without desire, unsatisfactorily, with lot of mental pressure and not in time	2			
Not starting any work in his/her own responsibility, doing little work very slow	3			
Does not have any initiation and not want to work even after pressure	4			

**8. Weakness**

<b>Date</b>				
Able to exercise without difficulty	0	1	1	0
Able to do mild exercise	1			
Able to do only mild work	2			
Able to do only mild work with difficulty	3			
Not able to do even mild work	4			

**9. Fatigue**

Date				
Normal	0	1	0	0
Patient like to stand in comparison with walk	1			
Patient like to sit in comparison with stand	2			
Patient like to lie down in comparison with sitting	3			
Patient like to sleep in comparison with lying down	4			

**10. Muscle Ache**

Date				
No	0	1	0	0
Patient like to stand in comparison with walk	1			
Patient like to sit in comparison with stand	2			
Patient like to lie down in comparison with sitting	3			
Patient like to sleep in comparison with lying down	4			

**11. Loss of initiation**

Date				
Absent	0	1	1	0
Mild	1			
Moderate	2			
Severe	3			

**12. Hair Fall**

Date				
No Hair Fall	0	1	1	1
Hair fall during combing the wet hair or after oiling the hair and combing	1			
hair fall during washing the hair and normal combing	2			
hair fall without combing	3			

**12. Coarse and Brittle Hair**

Date				
Absent	0	0	0	0
Mild	1			
Moderate	2			
Severe	3			

**13. Bowel Habit Frequency**

Date				
Once a day	0	0	0	0
Once in two days	1			
Once in three days	2			
Once in more than three days	3			

**Consistency**

Date				
<i>Shithil</i>	0	0	0	0
<i>Madhyam</i>	1			
<i>Kathin</i>	2			
Once a day	3			

**Straining**

Date				
No	0	0	0	0
Occasionally, bearable	1			
Frequency, severe	2			

**14. Pain in Menses**

<b>Date</b>				
Menstruation is not painful and daily activity is unaffected.	0	0	0	0
Menstruation is painful but seldom inhibits the women's normal activity, analgesic not required.	1			
Daily activity is affected. Analgesic drugs or therapies were needed but not as routine	2			
Activity clearly inhibited. Poor effect of analgesic. She cannot do even her routine work and was to be absent from class or office during menses. Somatic symptoms e.g. Headache, Tiredness, Nausea, Vomiting and Diarrhea.	3			
Total Score		10	06	01

**Zulewsk's clinical score for hypothyroidism**

Symptoms		Gradation		11.6.19	30.6.19	10.7.19
		Present	Absent			
Diminished sweating	Sweating in the warm room or hot summer day	1 0		0	0	0
Dry skin	Dryness of skin, noticed spontaneously, requiring treatment	1 0		0	0	0
Paraesthesia	Subjective sensation	1 0		0	0	0
Weight increase	Recorded weight increase, tightness of clothes	1 0		1	1	0
Constipation	Bowel habits	1 0		0	0	0
Hoarseness	Speaking voice, singing voice	1 0		0	0	
Impairment hearing	Progressive Impairment of hearing	1 0		1	1	0
Slow movement	Observe patient removing his cloths	1 0		1	0	0
Coarse skin	Examine hands, forearms, elbow for roughness and thickening of skin.	1 0		0	0	0
Cold Skin	Compare temperature of hands with examiner's	1 0		0	0	0
Periorbital puffiness	This should obscure the curve of the malar bone	1 0		0	0	0
Delayed ankle reflex	Observe the relaxation of reflex	1 0		1	1	1

<b>Sum of All Symptoms and Sign</b>		<b>12 0</b>	<b>04</b>	<b>03</b>	<b>02</b>
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<b>Type</b>	<b>Grades</b>	<b>11.6.19</b>	<b>30.6.19</b>	<b>10.7.19</b>
Euthyroidism	0 to 1			
Borderline Hypothyroidism	2 to 5	04	03	02
Clinical Hypothyroidism	More than 5			

## RESULTS

Significant correction in Thyroid Function Test especially serum TSH level was seen in patient. There was improvement shown in subjective as well as objective parameters.

## DISCUSSION

Hypothyroidism is a burning issue, and the present treatment is not helping much in resolving the underlying pathology. The conceptual analysis of symptomatology of hypothyroidism help to identify it is *Kapha Pradhan Tridoshaj Vyadhi* with *Rasa* and *Medo Dushti* predominantly. The main pathogenesis occurs due to the *Kapha* and *Pitta Vruddhi* and may be due to the *Strotorodh*, *Prakopa* of *Vata*. There are also having symptoms of *Rasavaha*, *Medovaha* and *Annavaha Stroto-Dushti*. *Virechana* is the best therapy for regulation of *Pitta Dosha*, *Pitta* associated with *Kapha* or *Vata* and for *Dosha* situated in *Pitta Sthana*.<sup>[4]</sup> In hypothyroidism *Rasa Dhatu Dushti* is also takes place. *Langhana* is a line of treatment for *Rasaj Vikara* and *Virechana* is a type of *Langhana* therefore *Virechana* is pacifies the symptoms related to *Rasa Dhatudushti*.<sup>[5]</sup> More over the first outcome of *Shodhana* is *Kayagnidipti*.<sup>[6]</sup>

Hypothyroidism is a *Strotorodh Pradhan Vyadhi*, so here *Virechana* will help for *Stroto Vishodhan*, also helps in normalizing the *Pratiloma Gati* of *Vayu*. *Virechana* drug are *Pruthvi* and *Jala Mahabhutapradhan*. *Snehan* and *Swedan* helps to bring the *Vitiated Dosha* into *Kostha*. From here the morbid *Dosha* through anal route are expelled out called *Virechana*. It has direct effect on *Agnisthana* and thus also improves *Agni*. Thus, *Virechana* helps in *Samprapti Vighatana* of the disease.

## CONCLUSION

In this case study, there are reduction in subjective as well as objective parameters. The Ayurvedic Concepts in hypothyroidism having fruitful effect; but it is only a case study so

that the end conclusion about management could not be drawn. This concept taking in mind the study should be carried out on large sample for serving the happiness to the mankind.

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