



**MANAGEMENT OF HYPOTHYROIDISM AND OBESITY THROUGH
VAMANA – AN AYURVEDIC PANCHAKARMA TREATMENT – A
CASE REPORT**

PAWAR SS^{*1}, NAKADE MM², SHINDE YB³ AND CHAUDHARI VR⁴

1: Ph.D. Scholar (Ayurved - Panchakarma), Assistant Professor (Department of Panchakarma), Dr. D. Y. Patil College of Ayurved and Research Centre, Pimpri, Pune, Maharashtra, India, Dr. D. Y. Patil Vidyapeeth, (Deemed to be University), Pune, Maharashtra, India – 411018

2: Ph.D. Guide, Professor and HOD (Department of Panchakarma), Dr. D. Y. Patil College of Ayurved and Research Centre, Pimpri, Pune, Maharashtra, India, Dr. D. Y. Patil Vidyapeeth, (Deemed to be University), Pune, Maharashtra, India – 411018

3: Ph.D. Scholar (Ayurved – Swasthavritta), Associate Professor (Department of Swasthavritta), Dr. D. Y. Patil College of Ayurved and Research Centre, Pimpri, Pune, Maharashtra, India, Dr. D. Y. Patil Vidyapeeth, (Deemed to be University), Pune, Maharashtra, India – 411018

4: Associate Professor and HOD (Department of Panchakarma), Dr. D. Y. Patil College of Ayurved and Research Centre, Pimpri, Pune, Maharashtra, India-411018

***Corresponding Author: Dr. Snehalata S. Pawar: E Mail: sneha.ayurved@gmail.com**

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ABSTRACT

Hypothyroidism is the Hormonal disorder results from decreased functioning of thyroid gland. It most frequently reflects disease of the gland itself (Primary Hypothyroidism) but can also be caused by pituitary disease (secondary Hypothyroidism) or hypothalamic disease (tertiary Hypothyroidism).

According to Ayurvedic scriptures Hypothyroidism and Obesity can be directly correlated with a combination of majority of the Nanatmaja Rogas of Kapha Dosha.

Clinically, the signs and symptoms of Hypothyroidism resemble with Agnimandya especially Dhatvagnimandya, Kaphaprakopa Lakshanas and Rasadushti Lakshanas and Sthaulya.

A 28 years old female patient, a known case of Hypothyroidism, visited the OPD of department of panchakarma for the complaint of progressive weight-gain and consistently High TSH levels (9.75 mIU/ml) even after regular intake of Tab. Thyronorm 150mcg.

After critical correlation of signs and symptoms of Hypothyroidism and Obesity, Vamana Karma i.e., Ayurvedic Therapeutic Emesis Therapy from the Ayurvedic Panchakarma Treatment was selected as the treatment of choice in the above patient of Hypothyroidism with Obesity.

After a single cycle of Vamana Karma significant results were observed in the hormonal levels and also in the weight reduction.

Thus, the current approach of Vamana Karma from Ayurvedic Panchakarma Treatment shows a better alternative in quick balancing the hormones and in the weight management.

Keywords: Ayurveda, Case Report, Hypothyroidism, Obesity, Panchakarma, Vamana

INTRODUCTION

Today, various Lifestyle Disorders like Hypothyroidism, PCOS, Obesity, Diabetes, Hypertension are becoming more and more prevalent in the both rural and urban population.

Thyroid hormone (TH) regulates metabolism which is essential for normal growth and development and it helps to regulate many body functions. Now it is well established that thyroid hormone levels maintain the body weight and energy expenditure.

Impairment of thyroid hormone is partly overcome by increased thyroid hormone levels, thereby preventing significant hypothyroid symptoms in most patients [1].

The Body composition and thyroid hormones appear to be closely related. Thyroid hormones regulate basal metabolism, thermogenesis and play an important role in lipid and glucose metabolism, food intake and fat oxidation.

Hypothyroidism is associated with decreased thermogenesis, decreased metabolic rate, and has also been shown to correlate with a higher body mass index (BMI) and a higher prevalence of obesity [2].

Primary hypothyroidism accounts for 90 to 95% of all cases, the remainder being of pituitary or hypothalamic or genetic origin. Most patients with primary hypothyroidism develop thyroid hormone deficiency during adulthood.

Primary hypothyroidism can be of a thyroprivic form, with markedly reduced or absent thyroid tissue, or a goitrous form, with an enlarged thyroid.

The most frequent cause of hypothyroidism in adults is autoimmune disease, with goitrous or thyroprivic Hashimoto's disease being the prime example.

Antithyroglobulin and antiperoxidase antibodies probably serve as markers of

autoimmunity, Anti-TSH antibodies cause disease. TSH receptor antibodies can block TSH action and thus contribute to decreased thyroid hormone formation.

Secondary hypothyroidism is due to destruction of pituitary thyrotropes by pituitary or adjacent tumors or by necrosis, as in Sheehan's syndrome. Mutation in the TSH β -subunit can lead to biologically inactive TSH, resulting in Secondary hypothyroidism. In addition, mutation in the TSH receptor leading to hypothyroidism are described.

Hypothalamic hypothyroidism is caused due to decreased TRH secretion, resulting in diminished TSH synthesis. TSH produced in the absence of a TRH stimulus

does not show normal glycosylation and has decreased biologic activity.

In addition to permanent hypothyroidism, transient hypothyroidism affects patients with subacute or painless thyroiditis, including the postpartum variety.

DIAGNOSTIC APPROACH TO HYPOTHYROIDISM

(T₄= Thyroxine, TSH= Thyroid stimulating hormone)

Primary Hypothyroidism – Free T₄ Low, TSH high

Secondary Hypothyroidism – Free T₄ low, TSH low or Normal

Thyroid Hormone Resistance- Free T₄ high, TSH high

Table 1: Tissue-Specific Sign and Symptoms of Hypothyroidism

| Tissue | Sign and Symptoms |
|------------------------|---|
| Central nervous system | Forgetfulness, Stoic Appearance, Myxedematous Dementia, Cerebellar Ataxia |
| Cardiovascular | Bradycardia, Pericardial Effusion, Hypertension |
| Respiratory | Depressed Ventilator Drive, Pleural Effusion, Sleep Apnea |
| Gastrointestinal | Constipation, Hypo Motility |
| Muscle | Delayed Tendon Reflexes, Muscle Stiffness and Cramps, Increased Muscle Volume Weakness |
| Skin | Dry, Rough, Hyperkeratosis; Non-Pitting Puffiness Due to Mucopolysaccharide Deposit |
| Metabolism | Basal Metabolic Rate Decreased, Cold Intolerance, Decreased T ₄ and Drug Turnover, Weight Gain |

TREATMENT FOR HYPOTHYROIDISM PREFERRED IN ALLOPATHY:

Hypothyroidism is preferentially treated with levothyroxine (T₄) with doses ranging from 0.5 to 0.2 mg/day and an average replacement dose of 1.6 μ g/kg/day.

T₃ is formed from T₄ by intracellular conversion so that both T₃ and T₄ exist in

the body. Synthetic T₄ has a long shelf life and uniform potency. Eighty percent is absorbed, and once-a-day intake leads to stable T₃, T₄ and TSH levels.

Accordingly, thyroxine represents the preferred thyroid hormone preparation for chronic replacement probably is needed for the rest of their lives and that periodic evaluation is required [1].

AYURVEDIC PERSPECTIVE OF HYPOTHYROIDISM AND OBESITY:

In Ayurveda the concept of Agni can be correlated with Metabolism. A critical analysis of Hypothyroidism with reference to Ayurvedic principles of Agni i.e., Metabolism shows its correlation with Agnimandya especially Dhatvagnimandya. The Dhatvagnimandya especially Rasa dhatvanimandya leads to Sama Rasa Vridhi and over production of mala of Rasadhatu i.e., Malarupa Kapha Vridhi. This leads to Signs and Symptoms similar to Hypothyroidism [3].

Similarly, the Dhatvagnimandya especially Meda Dhatvanimandya i.e., lowered Fat metabolism is responsible for unwanted weight gain.

Acharya Charaka has mentioned that Vamana Karma form Ayurvedic Panchakarma Treatment principally increases Agni - Jatharagni i.e. Digestive Fire. The Agni (Jatharagni) which was unable to demonstrate its digestion power due to being covered by Kapha dosha, is increased once the Kapha dosha is removed after the Vamana Karma.

With the improvement of Agni, other doshas Vata and Pitta also become calm.

The overall improvement in Agni, leads to slow improvement in the Dhatwagnis because dhatwagnis totally depend on the main Agni i.e., Jatharagni. This Ayurvedic

principle could be used to Balance Hormones and Weight also [4].

VAMANA KARMA FORM AYURVEDIC PANCHAKARMA TREATMENT PREFERRED IN HYPOTHYROIDIM AND OBESITY CASE:

Vamana Karma form Ayurvedic Panchakarma could cure the root cause of Agnimandya and Dhatvagnimandya and which automatically balances the Hormonal levels and Weight.

Vamana is a quite cumbersome and tedious procedure in Panchakarma but if it is done scientifically, it could bring quick and unparalleled clinical results in such incurable conditions prevalent in the current era.

CASE REPORT:

A 28 years old female patient, diagnosed case of Hypothyroidism on regular treatment with Thyronorm 150mcg, visited OPD of department of panchakarma with the complaint of increased TSH level and gradual weight-gain.

She was admitted in panchakarma IPD for the complaints of weight gain i.e. 12 kg weight gain reported by her in last 2 year and reported consistently High TSH levels 9.75 mIU/ml even after regular intake of Tab. Thyronorm 150 Mcg per day.

No relevant family history of Hypothyroidism, Hypertension or Diabetes or Obesity was reported by the patient.

Patient had Kapha -Vata Prakriti and Kaphapradhana Nadi, Sam Jivha i.e., White Coated Tongue and Samyak Mala and Mutra i.e., Normal Bowels and Urine.

Normal bowel and bladder habits were reported.

VAMANA KARMA TREATMENT PROTOCOL:

The patient was admitted in Panchakarma Female IPD on 1 December, 2018.

The clinical assessment was done on the basis of Signs and symptoms of Hypothyroidism and Obesity.

Objective assessment was done on the basis of TSH level and Weight before and after the treatment. The Panchakarma treatment selected and planned for the patient was Vaman Karma.

To proceed with Vamana karma, patient was examined for Bala (Strength), Agni (Digestive capacity) and Koshta (Bowel habits) as per the Ayurvedic parameters.

After assessment of these parameters, patient was advised to take Hingvashtak Churna 500 mg with first bite of meal with Goghrita and Chitrakadi Vati 500 mg after meal thrice a day for 6 days.

After Pachana treatment her appetite was improved significantly.

After assessment of Agni; Shodhanang Snehapana i.e., Internal administration of medicated ghee was given to the patient daily once in Vardhaman Matra i.e.,

increasing dose of Sneh-Dravya i.e., Unctuous Ghee day by day.

The dose of Panchatikta Grita i.e., Panchatikta Ghee was increased on daily basis as per the observations of the digestive capacity of the patient examined every day.

Panchatikta Ghrita was administered in dose of 30 ml, 60 ml, 90 ml, 120 ml, 150 ml, 180 ml, 210 ml for seven days.

Panchatikta Ghrita was given in the morning and patient was followed for observance of Samyak Snigdha Lakshanas i.e., Signs and Symptoms indicating end point for ceasing of the Snehapana.

The Shodhanang Snehapana was continued till the appearance of Samyak Snigdha Lakshanas.

The Signs and Symptoms of Samyak Snehana were observed on 7th Day of Shodhanang Snehpana were

1. Snigdha and Asanhat mala i.e., Oily and Loose Stool
2. Snigdhangha i.e., Oiliness all over the body
3. Snigdha Twak i.e., Greasiness over skin
4. Adhastad Snehadarshan i.e., Passing of the ghee as it is through anal route
5. Indriya Prasadnam i.e., Clarity of sensory perception, and
6. Laghutvam i.e., Feeling of lightness.

After observing Samyak Snigdha Lakshanas, patient was posted for Bahya

Snehana - Abhyanga i.e., whole body oil massage with Sahachara Taila and followed by Swedana i.e., Fomentation as Bashpa-Swedana in Swedan Peti i.e. Sudation in a steam chamber by Dashmula Decoction, for two days.

First day of Snehana-Swedana was Vishranti Din i.e. Gap Day and on that day Snehana Swedan was carried out and patient was advised to eat Kaphotkleshak Aahar i.e Kapha Provoking Diet at Dinner.

On the Second day, Snehana-Swedana was done and it was followed by Vaman Karma.

On the day of Vamana, patient went through Bahya Sehana-Swedana first, and then she was given Yavagu Pana i.e Drinking of liquid formed cooked rice (gruel). After Yavagu Pana patient was made to wait quietly for half an hour in sitting position.

At the end of this, Vamaka Dravya i.e Ayurvedic Powder for Emesis was administered. The drug used for Vamana Karma was Madanphala Pippali Churna i.e., Powder of *Randia Spinosa* in Antarmukhamushti Pramana i.e. the dose of drug comprised in a Closed fist of patient, i.e. around 12 mg. It was then clubbed with 10 gm of Sindhava i.e. Rock salt and 40 gm of Honey for Lehana i.e., licking at 7:00 am.

After administration of Vamak-dravya i.e., Emesis Formulation, patient was made to

sit on a chair for about one muhurta i.e., 48 minutes and observed carefully for the Signs and symptoms of Dosha Sthana i.e. Site of Doshas and Dosha Gati i.e. Movement of Doshas as prescribed in Ayurvedic scriptures.

Signs and Symptoms of Dosha Sthana and Dosha Gati observed in the patient were, at 7:20, Sweda Prabhutva i.e appearance of sweating, at 7:30 Romaharsha i.e. Horripilation, at 7.35 Discomfort in abdomen and at 7.45 Nausea and Salivation.

After the appearance of all the Signs and Symptoms of Dosha Sthana and Dosha Gati, a Vamanopaga Dravya i.e. an adjuvant drug to emesis Yashtimadhu kwath i.e. Decoction of Liquorice was administered as a Aakantha Paan i.e in the dose of Full of Mouth and Throat.

After this patient was allowed to naturally to vomit all the dosha with medicines given to her.

The process of administering Yashtimadhu kwath i.e. Decoction of Liquorice and observing of the natural emesis episodes was repeated till Samyak Vaman Lakshanas i.e. Signs and symptoms of Ideal Vamana Karma i.e. Ideal Emesis Detoxification were found.

After Prvavara Shudhi i.e., Excellent Detoxification of patient by Vamana Karma the patient went through Post Emesis Procedures. It included

Dhoomapana i.e., Medicated Fumes for elimination of remaining Kapha from Head and Neck Region and Sansarjan Karma of Ahara i.e., Specific diet schedule to achieve balance in Agni i.e. Digestion and Metabolism as prescribed in the Ayurveda Scriptures.

OBSERVATIONS OF VAMANA KARMA:

Patient had 10 Pradhan Vega of Vaman that is 10 times projectile vomiting and Pittant Vamana i.e. Emesis of Pitta followed by Kapha was observed. After the Vamana Karma, the patient felt very fresh and light. She reported the feeling of more conscious, focused and well orientation. No any untoward effects were observed or reported by the patient.

On the basis of number of Vamana-Vega i.e., Emesis Episodes, 10 Episodes of Emesis was considered as Pradhan Shuddhi and Sansarjana Krama was planned for Seven days.

Sansarjana Krama is the sequential diet regimen followed after Shodhana Karma in Panchakarma to enhance the Jatharagni i.e., Digestive power of the body. Sansarjana Krama is the need for every Samshodhita Purusha i.e., the person who has undergone Ayurvedic detoxification. It helps to regularize the Jatharagni which is weakened due to Vaman like purificatory process, and to overcome the Doshakshaya i.e., lowered humours and Dhaturkshaya i.e depletion of the body tissues [4].

Table 2: Ayurvedic Clinical Interventions: Vamana Karma

| Sr. No. | Intervention | Medicine | Days |
|---------|-----------------|---|--|
| 1. | Deepana Pachana | Hingvashtak Churna, Chitrakadi Vati | 1 st to 6 th day |
| 2. | Snehapana | Panchatikta Ghrita | 7 th to 13 th day |
| 3. | Abhyanga | Sahachara Taila | On 14 th & 15 th day |
| 4. | Bashpa-Swedana | Steam of Dashmoola Decoction | On 14 th & 15 th day |
| 5. | Vamana Karma | Vamak Dravya – Madanphala Pippali Churna, Vamanopaga Dravya - Yashtimadhu Kwatha | On 15 th day |
| 6. | Sansarjan Krama | 3 Annakal i.e. Diet intakes of Every - Peya, Vilepi, Akruta Yusha, Kruta Yusha, Mansarasa as per Pravara Shudhi i.e. Excellent Detoxification | 16 th to 22 th day |

ASSESSMENT CRITERIA

After completion of Sansarjan Krama for 7 days, patient was discharged and she come for follow-up with reports of TFT - Thyroid function Test. Results of the treatment were assessed on two parameters. The First was

T3, T4 and TSH levels and second was the weight.

OUTCOME OF THE VAMANA KARMA TREATMENT:

After Vamana Karma i.e., Ayurvedic Emesis Therapy on 19/01/2019, patient

went to Endocrinologist for her regular follow up.

After Clinical Assessment and Observing the Pathological Reports of T3, T4, TSH levels, the Endocrinologist reported

1. Significant Clinical Improvement in her along with

2. Significant Improvement Thyroid Functions i.e. in TSH, T4 levels

3. Significant Weight Reduction

After these results, the Endocrinologist lowered her dose of Tablet Thyronorm from 150 mcg to half i.e., 75 mcg.

Table 3: Biochemical Investigations Before and After Treatment

| Parameters | Normal range | Before Treatment | After Treatment |
|------------|---------------------|------------------|-----------------|
| Ultra TSH | 0.40 – 4.00mIU/ml | 9.75 mIU/ml | 0.02 mIU/ml |
| Serum T4 | 4.87 – 11.72 mcg/dl | 7.30 mcg/dl | 12.28 mcg/dl |
| Serum T3 | 0.64 – 1.52 ng/ml | 1.08 ng/ml | 1.23 ng/ml |

Table 4: Weight Before and After Treatment

| Weight assessment | Before Treatment | After Treatment |
|-------------------|------------------|-----------------|
| | 85 KG | 78 KG |

DISCUSSION

Thyroid hormone (TH) regulates metabolic processes essential for normal growth and development. Thyroid hormone status correlates with body weight and energy expenditure. Body composition and thyroid hormones appear to be closely related.

Thyroid hormones regulate basal metabolism, thermogenesis and play an important role in lipid and glucose metabolism, food intake and fat oxidation.

Hypothyroidism is associated with decreased thermogenesis, decreased metabolic rate, and has also been shown to correlate with a higher body mass index (BMI) and a higher prevalence of obesity [2].

As per the principles of Ayurveda, Hypothyroidism can be considered as a disorder of Dhatvagni i.e., Dhatwagnimandya and Vamana Karma is

the preferred Panchakarma treatment, which was adopted in this study.

The Signs and Symptoms of Hypothyroidism can be closely correlated with the Lakshanas of Dhatwagnimandya, Kaphaprakopa and Rasadushti.

Dhatwagnimandya especially Rasa dhatvanimandya leads to Sama Rasa Vridhi and over production of mala of Rasadhatu i.e., Malarupa Kapha Vridhi.

Many of Rasaja Vikaras, which have been mentioned by Acharya Charaka are similar to the Clinical features of Hypothyroidism namely Ashradha i.e., Loss of desire for food, Gaurav i.e., Feeling of Heaviness, Tandra i.e., Drowsiness, Angamarda i.e., Malaise, Panduroga i.e., Anaemia, Klaihya i.e., Impotency, Srotorodha i.e., Obstruction of microcirculatory channels, and Agnimandya i.e., Hypo metabolic state etc.

According to Ayurveda, Hypothyroidism can be considered as Krichra Sadhya (chronic ailment) as vitiation of Dhatvagni once created can't be corrected easily, so it takes time to reverse the pathological changes that take place due to Hypothyroidism. This vitiation of Dhatvagni, if not treated properly can reach up to genetic levels i.e., Shukra and Artava which may give an idea about Congenital Hypothyroidism [3].

Agni is the invariable agent in the process of *Paka* (Digestion, Transformation). Ingested food is to be digested, absorbed and assimilated, which is unavoidable for the maintenance of life, and is performed by the *Agni*.

Agni has been divided into 13 types, i.e., one *Jatharagni*, Five *Bhutagni* and Seven *Dhatvagni*. *Jatharagni* is the most important one, which digests four types of food and transforms it into *Rasa* and *Mala*.

The Five *Bhutagnis* act on the respective *Bhutika* portion of the food and thereby nourish the *Bhutas* in the body i.e Prithvi, Jal, Agni, Vayu, and Akash.

The Seven *Dhatvagnis* act on the respective *Dhatus* by which each *Dhatu* is broken into three parts. In this way, the entire process of transformation consists of two types of products - *Prasad* (essence) and *Kitta* (excrete). The former is taken for nourishment while the latter one is thrown

out, which otherwise defiles the body if it stays longer [5].

Acharya Charaka has mentioned that Vamana Karma increases Agni i.e. Jatharagni. As the Agni i.e., Jatharagni is unable to demonstrate its power due to being covered by Kapha dosha, it becomes adept once the Kapha dosha is removed, and other doshas also become calm.

According to Ayurveda Dhatwagni depends on Jatharagni. If vamana increases Agni then it increases Dhatwagni also because all Agnis in the body ultimately depend on Jatharagni. Increased Jatharagni in turn improves Dhatu Agni which is the key in treating the Dhatwagnimandya. Thus, in Ayurveda the concept of Agni can be correlated with the overall body metabolism [5].

According to this concept here the case of Hypothyroidism and Obesity was treated with Vamana and significant changes were observed in TSH and T4 level, Weight and General Health Status, after which endocrinologist lowered her dose of Tablet Thyronorm from 150 mcg to 75 mcg.

The present case report shows that Vamana Karma in the Ayurvedic Panchakarma Treatment could be a ray of hope in the effective management of Hypothyroidism and obesity.

CONCLUSION

The present case report shows that Vamana Karma in the Ayurvedic Panchakarma

Treatment could be a ray of hope in the effective management of Hypothyroidism and Obesity.

The clinical achievements in the form of marked improvements in Thyroid Function Levels i.e., TSH and T4 levels, Reduction in weight, Reduction in the Signs and Symptoms of Hypothyroidism and improvement in the General health status and Well-being of the patient indicates a wide scope of research in such incurable conditions prevalent in the current era.

Vamana Treatment could be a better alternative in quick balancing the hormonal levels and even in the weight management. Further clinical study is needed with a larger sample size to confirm scientific and statistical evidence of the efficacy of Ayurvedic Vamana Treatment in such Hypothyroidism and Obesity cases.

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