



## EFFECTIVE MANAGEMENT OF HYPOTHYROIDISM WITH AYURVEDA - A CASE STUDY

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**Abstract:** Thyroid disease stands out as one of the most widespread endocrine disorders globally. Subclinical hypothyroidism involves normal T3 and T4 levels but elevated TSH levels (up to 10 IU/dl). Despite normal thyroid hormone levels, the patient may exhibit symptoms of hypothyroidism. Modern medicine often uses long-term thyroxine hormone therapy for hypothyroidism, which may cause some side effects. Ayurvedic medication provides an alternative for effective hypothyroidism management. In the present study, a case of subclinical hypothyroidism with symptoms such as *angagaurava*, *mukhashotha*, *malabaddhata*, *keshapataha*, etc., has been treated successfully with a combination of *Hingwashtak choorna*, *Shaddharan choorna*, *Punarnavadi kadha* and *nirgundi ghana*. After two months of treatment, the patient exhibited a notable relief in all symptoms with a significant reduction in serum TSH levels, decreasing from 12.34  $\mu$ IU/mL to 1.89  $\mu$ IU/mL.

**Keywords -** Subclinical hypothyroidism, Ayurveda, Anukta vyadhi, Nirgundi ghana, shaddharana choorna, punarnavadi kadha, hingwashtaka choorna.

### INTRODUCTION

The main cause of the emergence of diseases in modern times is primarily attributed to significant changes in lifestyle and dietary habits. Thyroid diseases, hypertension, and diabetes are illustrative examples of lifestyle disorders.

The thyroid gland is the first endocrine gland to develop in humans. It's situated in the anterior neck, between the C5 and T1 vertebrae, deeply nestled within the platysma, sternothyroid, and sternohyoid muscles. This gland is highly vascular in nature. It plays a crucial role in regulating various metabolic processes in the body.

Hypothyroidism can result from either primary gland failure in the thyroid itself or insufficient stimulation of the thyroid gland by the hypothalamus or pituitary gland. Subclinical hypothyroidism is a type of hypothyroidism where the patient exhibits normal levels of T3 and T4 but elevated TSH levels, reaching up to 10 IU/dl. Despite the normal thyroid hormone levels, specific cardinal symptoms of hypothyroidism are present in the patient.

In modern medicine, the common approach to treating hypothyroidism involves long-term thyroxine hormone therapy. However, it's noteworthy that this medication may be associated with various side effects, including but not limited to chest pain or discomfort, difficulty or labored breathing, extreme fatigue, and irritability. However, hypothyroidism can be well managed with Ayurvedic medication.

From the view of *ayurveda*, Hypothyroidism primarily arises from an imbalance in the *vata* and *kapha doshas*, categorizing it as an *anukta vikara*. *Agni* plays an important role here. In this article case report of subclinical hypothyroidism treated with ayurvedic treatment principle is discussed.

### Case report

A female patient of age 23 years came to OPD with complaints of,

- Hair fall (*keshapatana*)
- General body weakness (*daurbalya*)
- Loss of appetite (*anannabhilasha*)
- heaviness in body (*Angagaurava*)
- Weight gain (*bharavruddhi*)
- Slight swelling on face (*mukhashotha*)
- Hard stools (*malabaddhata*)
- Irregular menses

Above symptoms was present since 3-4 months.

### Personal examination

Patient age – 23 years

Height – 5 ft. 6 inch

Weight – 77 kg

Temperature – 97 F

### Physical examination

Nadi (Pulse) – Kaphaja

Mutra (Urine) –Samyak Mutra Pravritti (Normal micturition), Pale yellow

Mala (Stool) – *baddha* (hard stools)

Jivha (Tongue) – *shwetabha upalepa* (Coated)

Shabda (Voice) - heavy

Sparsha (Touch) – *Sheeta* (Cold)

Drika (Eye) – Normal

Aakriti (Physical structure) - *Madhyama* (Medium)

Agni – *Manda* (decreased)

### Thyroid gland local Examination

On Inspection:

Localized swelling – Absent

On palpation:

Size - Normal

Shape – Normal

Localized temperature - Not Raised

Tenderness - Absent

**Laboratory findings:** thyroid function test on 25/05/2023

T3- 128.7 ng/dL T4- 8.23 µg/dL

TSH- 12.34 µIU/mL

### Intervention:

Treatment was planned according to symptoms present after *roga* and *rogi pariksha*. The following medicines were administered to a patient for a period of 2 months.

| Sr. No. | Aushadha                       | matra | kala                         | anupana                      |
|---------|--------------------------------|-------|------------------------------|------------------------------|
| 1       | <i>Hingwashtak choorna</i>     | 3g    | Before food twice a day      | Warm water                   |
| 2       | <i>Tab shaddharana choorna</i> | 500mg | After food                   | Warm water                   |
| 3       | <i>Punarnavadi kadha</i>       | 20ml  | After food                   | Equal quantity of warm water |
| 4       | <i>Nirgundi ghana</i>          | 500mg | At night before going to bed | Warm water                   |

### RESULT:

| Symptoms/reports                             | 1 <sup>st</sup> day | After 1 months | After 2 months |
|--|---------------------|----------------|----------------|
| <i>Keshapataha</i> (hair fall)               | ++                  | +              | -              |
| <i>Angagaurava</i> (heaviness in body)       | ++                  | +              | -              |
| <i>Daurbalya</i> (General body weakness)     | ++                  | +              | -              |
| <i>Mukhashotha</i> (Slight swelling on face) | ++                  | +              | -              |
| <i>Malabaddhata</i> (hard stools)            | ++                  | -              | -              |
| <i>Anannabilasha</i> (Loss of appetite)      | ++                  | -              | -              |
| TSH  | 12.34 µIU/mL        | -              | 1.89 µIU/mL    |

### DISCUSSION

This particular clinical picture has symptoms of *aama* (a state of incomplete digestion, transformation or metabolism) and *vata kapha dushti*. The line of treatment was *amapachan*, *agnivardhan*<sup>1,2</sup>.

*Hingwashtaka choorna*<sup>3</sup>: The components of Hingvastaka churna include Ginger (Sunthi), Black pepper (Maricha), Long pepper (Pippali), Ajamoda, Rock salt (Saindhava lavana), Cumin seeds (Swetha jeeraka), Black cumin seeds (Krishna jeeraka), and purified Asafoetida (Shuddha Hingu). This combination is having *katu*, *tikta*, *lavana rasa*, *ushna virya*. It does the *agnivarshan*, *amapachana*, *anulomana* and *vatakapaha shaman*.

*shaddharana choorna*<sup>4</sup>: this formulation is from *amashayagata vata chikitsa*. It comprises of six ingredients thar are *Chitraka* (*Plumbago zeylanica*), *Indrayava* (*Holarrhena antidyenterica*), *Patha* (*Cissampelos pareira*), *Katuki* (*Picrorhiza kurroa*), *Ativisha* (*Aconitum heterophyllum*), *Haritaki* (*Terminalia chebula*). *Tikta*, *katu*, *kashaya rasa* promotes digestion and dispels natural toxins.

*Punarnavadi kadha*<sup>5</sup>: Also known as *punarnavashtaka kwath*. It contains, *Punarnava* (*Boerhavia diffusa*), *Haritaki* (*Terminalia chebula*) *Nimb* (*Azadirachta indica*), *Daruharidra* (*Berberis aristate*), *Katuki* (*Picrorhiza kurroa*), *Patol* (*Trichosanthes dioica*), *Guduchi* (*Tinospora cordifolia*), *Shunthi* (*Zingiber officinale*). Mean attributes of all contents are *tikta Kashaya rasa*, *ushna virya* and *laghu*, *ruksha guna*. Because of its *Laghu* (lightness) and *Ruksha* (dry) characteristics, this herbal decoction possesses the scraping property, promoting a sense of lightness and alleviating obstructions by eliminating imbalanced *kapha*. *Ushna virya*

brings lightness to body by *Aampachan*. The unique blend of these herbs enables therapeutic healing, known as *Shaman*, with *Punarnastak kwath*. Moreover, it facilitates bio-purification through urination and defecation, facilitated by herbs like *Punarnava* and *Katuki*, respectively.

*Nirgundi ghana*<sup>6</sup>: Nirgundi (*Vitex negundo*) have katu, tikta, Kashaya rasa and laghu ushna guna. It has *vata kapha nashaka*, *keshya* (beneficial for hair), *medhya* (nootropic), *aruchinashaka*, *deepaniya* (increases appetite), *shothaghna* (reduces swelling) properties. *Nirgundi* was the drug of choice by comparing the symptoms present in this case and properties of drug.

As a synergistic effect of these medicines, all symptoms disappeared as well as serum TSH level became normal within two months.

## CONCLUSION

Ayurveda has established its own principles for understanding the causes, diagnosing, preventing, and treating diseases. In this case study, the TSH level was higher than the normal limit. After a proper Ayurvedic diagnosis and 2 months of treatment, the serum TSH value became normal and all the symptoms disappeared. Hypothyroidism can be effectively controlled through the judicious use and careful selection of Ayurvedic medicines.

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