

ROLE OF *NIDANA-PARIVARJANA* IN NEWLY DIAGNOSED PRIMARY HYPOTHYROIDISM: A CASE STUDY

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ABSTRACT

Introduction: Hypothyroidism is becoming one of the most common health condition. Prevalence of hypothyroidism is nearly 11% in adults. As it is a disease of thyroid gland, it may harm the metabolic and growth functions. In spite of advanced medical science, only thyroid replacements are given to patients, which last lifelong. *Agnimandya* and *pradnyaparadha* are mentioned as causative factors of any disease. If causative factor is suspected properly and treated accordingly, this condition can be treated. **Material and method:** A 26 yr old female patient came with signs and symptoms of puffy face-hands-legs, tiredness, weakness, hair loss, weight gain with poor appetite and TSH 46.24 uIU/ml. She was started with tab Euthyrox 75 mcg once a day since 15-20 days. Causative factor was noted as

continuous night shift since, unhealthy food habits, stress and lack of sleep. *Nidanparivarjana*, *aamapachana* drugs, neck exercises, yoga and meditation were advised, i.e. lifestyle modification were given. **Results:** TSH level came to normal i.e. 1.86 uIU/ml. Thyroid replacements reduced to 25 mcg, and after to 12.5 mcg. Clinical sign and symptoms were reduced. **Discussion:** Different types of causative factors vitiate the *doshas*, leading to *doshadushya sammurchaana* and disease is caused. *Nidana* means cause and *parivarjana* means removal. Hence, *nidanaparivarjana* plays an important role in treatment of such cases.

KEYWORDS: *Nidanparivarjana*, lifestyle modification, hypothyroidism, yoga, meditation.

INTRODUCTION

Cases of thyroid diseases are likely to be increased in this new era. As everyone is trying to catch the speed of earth, there are lifestyle changes like sedentary lifestyle, lack of exercise, lack of sleep, excessive stress, unhealthy food habits, etc. All these factors, affects the metabolic functions of the body and so, the metabolic disorders like diabetes, hypertension, hypothyroidism, obesity, etc are seen.

Prevalence of hypothyroidism in India is nearly 11% in adults.^[1]

Hypothyroidism is a hypometabolic clinical state resulting from inadequate production of thyroid hormones for prolonged period or rarely from resistance of the peripheral tissues to the effects of thyroid hormone.^[2]

The thyroid gland produces two related hormones, thyroxine (T3) and tri-iodothyronine (T4).^[3] The major function of the thyroid gland is to maintain high rate of metabolism.^[4] Acting through thyroid hormone receptors alpha and beta, these hormones plays a critical role in cell differentiation, during development and help maintain thermogenic and metabolic homeostasis in adults.^[5] TH also has an important effect on growth and development in the later stages of childhood. In adults, thyroid hormone primarily regulates metabolism, although there are important actions on mood, cognition, heart, muscle and bone. The metabolic actions of TH include regulation of oxygen consumption and protein, carbohydrate, lipid and vitamin metabolism.^[6]

According to *ayurveda*, all these functions are controlled by *agni* and *pitta dosha*.^[7] Metabolism is controlled by 13 *agni* i.e. *jatharagni*, *sapta-dhatwagni*, *panchabhautik agni*,^[8] *pachak pitta*.^[9]

Sign of hypothyroidism include, dry coarse skin, cool peripheral extremities, puffy face, hands and feet i.e. myxedema, diffuse alopecia, bradycardia, peripheral edema, delayed tendon reflex relaxation, carpal tunnel syndrome, serous cavity effusion and symptoms are tiredness, weakness, dry skin, feeling cold, hair loss, difficulty in concentration and poor memory, constipation, weight gain with poor appetite, dyspnoea, hoarse voice, menorrhagia (later oligomenorrhoea or amenorrhoea), paresthesia, impaired hearing.^[10]

In cases of hypothyroidism, in spite of advanced medical science, only thyroid replacements like levo-thyroxin^[11] are given to patients and that for lifelong. If *dosha-dushya*-

sammurchana studied properly in hypothyroidism cases, this condition can be treated completely.

CASE REPORT

Age: 26 yrs

Gender: female

Complaints of

- Puffy face-hands-legs,
- Tiredness,
- Weakness,
- Hair loss,
- Weight gain with poor appetite,
- Constipation
- TSH: 46.24 uIU/ml

All complaints since 1-1 ½ month

Past history: No history of any major illness or surgery.

Family history

Swakul: No history

Matrukul: Mother K/C/O diabetes

Pitrukul: No history

Physical examination

Nadi: 102/min, tachycardia

Mala: *Mala vibandha*

Mutra: *Samyak*

Jivha: *Eshat saam*

Shabda: *Prakrut*

Sparsha: *Anushna*

Druk: *Upanetra* since 10-11 yrs

Aakruti: *Madhyam*

Raktadaba: 120/80 mmHg

Swasan vega: *Prakrut* 18/ min

Dehabhaar: weight gain 5-6 kg

Agni: Mandya

Prakriti: Pitta-kapha

Systemic examination

Respiratory system: AEBE clear

Cardiovascular system: S1 S2 normal, tachycardia

Central nervous system: Concious and oriented

Hetu

- Continuous night shift since 1- 1 ½ year
- Sedentary lifestyle
- Lack of exercise
- Lack of sleep
- Excessive stress
- Unhealthy food habits

MATERIALS AND METHODS

1. Nidanaparivarjana

- Change in shift of job: Patient was advised to change the shift of current job. Night shift was changed to day shift.
- Sleep modifications: Due to night shift, patient was not having good sleep. Patient was taking sleep for 4-5 hrs. It was advised to take minimum 6-8 hrs uninterrupted sleep. And advised not to take sleep during daytime.
- Stress management: Patient was having stress related to job work. It was advised to decrease the stress level by meditation for at least 15 minutes daily by listening to any music. Omkaar jaap 5-15 rounds.
- Exercise and yoga included were:
 - Warm up exercises daily 5-10 rounds
 - *Paschimottanasa* daily 5 rounds
 - *Halasan* daily 2-5 rounds,
 - *Sarvangasana* daily 2-5 rounds
 - *Chakrasana* daily 2 rounds
 - *Gomukhasana* daily 2-4 rounds
 - *Ardhamatsyasana* daily 2-4 rounds
 - *Hastapadangushthasana* daily 2-4 rounds

- *Suryanamaskara* daily 12 rounds
- *Anuloma vilom* daily 10-20 rounds
- *Bhasrika* daily 20 breaths
- *Kapalbhati* daily 20-40-80 breaths
- *Bhramari* daily 10 rounds
- *Omkarjaap* 5-15 rounds
- Diet modification: Patient was taking *ruksha, sheeta, guru, madhur, viruddha aahar, akal bhojana, ahitkar aahar, ajirhashana*, fast food, cold drinks. She was advised to avoid all the above food and advised to take *laghu, ushna, snigdha, drava, supacchya aahara*.

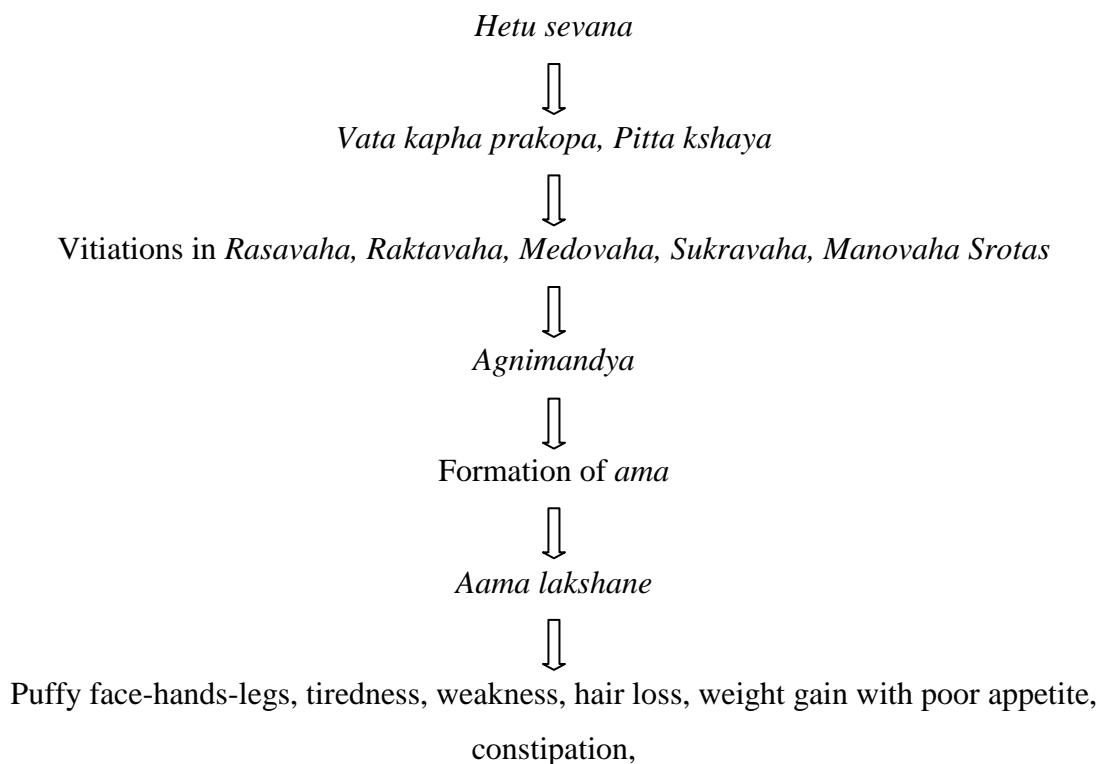
2. Chikitsa

- Amapachak vati 2 vyanodane with lukewarm water × 15 days
- Hingwastaka churna 5 gm before food two times with lukewarm water × 15 days
- Aarogyavardhini vati 2 vyanodane with lukewarm milk × 30 days

Type of study: Simple random single case study

DISCUSSION

Samprapti



Srototrodh balabhransha gauravaanilamudhata/ aalasyapakti nishthiva

malasangaruchiklama/

Va.Su. 13/23^[12]

Pitte mandonala sheetam prabhahaani//Va.Su. 11/15^[13]



Hypothyroidism (*anukta vyadhi*)

As discussed above, all the causative factors lead to vitiation in *dosha*, *dhatu* and *srotasa*. Vitiated *doshas* gets deposited in organ where the *srotovaigunya* is present. By these diseases are occurred. Charakacharya has said *anukta vyaadi*^[14] means untold diseases in samhita. But when we study the causative factors, *dosh-dushya sammurchana*, we can understand any *anukta vyadi* established in this new era.

According to *ayurveda*, all diseases are caused by defect in digestive fire i.e. *mandagni*.^[15] When there is vitiation in *agni* i.e. digestive fire, pathogenesis of any disease take place. On reviewing the clinical presentation from all classical texts it is found that in hypothyroidism, there is abnormality of *Jatharagni* and *Dhatwagni* along with abnormality of *Kapha* and *Vata Dosha* as well as *Rasavaha*, *Raktavaha*, *Medovaha*, *Sukravaha* and *Manovaha Srotas*.^[16] *Dosha-dushyasamoorchhana* in various *dhatu*s results in the systemic manifestation of the disease. Also *pradnyaparadha* is mentioned as causative factor of any disease.^[17]

Nidanaparivarjana means removal of cause.

In this case, reversal of causative factor i.e. *nidanaparivarjana* was the main treatment given. Effect of *nidanpariwarjana* was seen from very first month. Ultimately thyroid hormone replacement were reduced gradually and stopped after 6 months with no previous signs and symptoms.

RESULTS

- Metabolic functions improved,
- Signs and symptoms reduced,
- Ranges of thyroid function test came to normal levels,
- Thyroid hormone replacements stopped.

Table 1 shows the results of thyroid function test and doses of levothyroxine:

Table 1.

Date	T3(total)	T4(total)	TSH(ultrasensitive)	medication
07/08/2019	129	4.16	46.24	Tab. Thyrox 75mg OD
10/09/2019	75.04	7.37	1.86	Tab. Thyrox 25mg OD
12/10/2019	108.36	8.15	2.16	Tab. Thyrox 25mg OD
12/11/2019	97.30	7.81	1.50	Tab. Thyrox 25mg OD
08/01/2020	89.21	6.44	1.61	Tab. Thyrox 12.5mg OD

CONCLUSION

- Nidanaparivarjana plays an important role in treatment of any disease along with treatment of that particular disease.
- Treatment and reversal of newly diagnosed thyroid gland abnormalities are possible through ayurveda.
- Nidana parivarjana along with yoga, meditation and medication gives effective treatment.

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