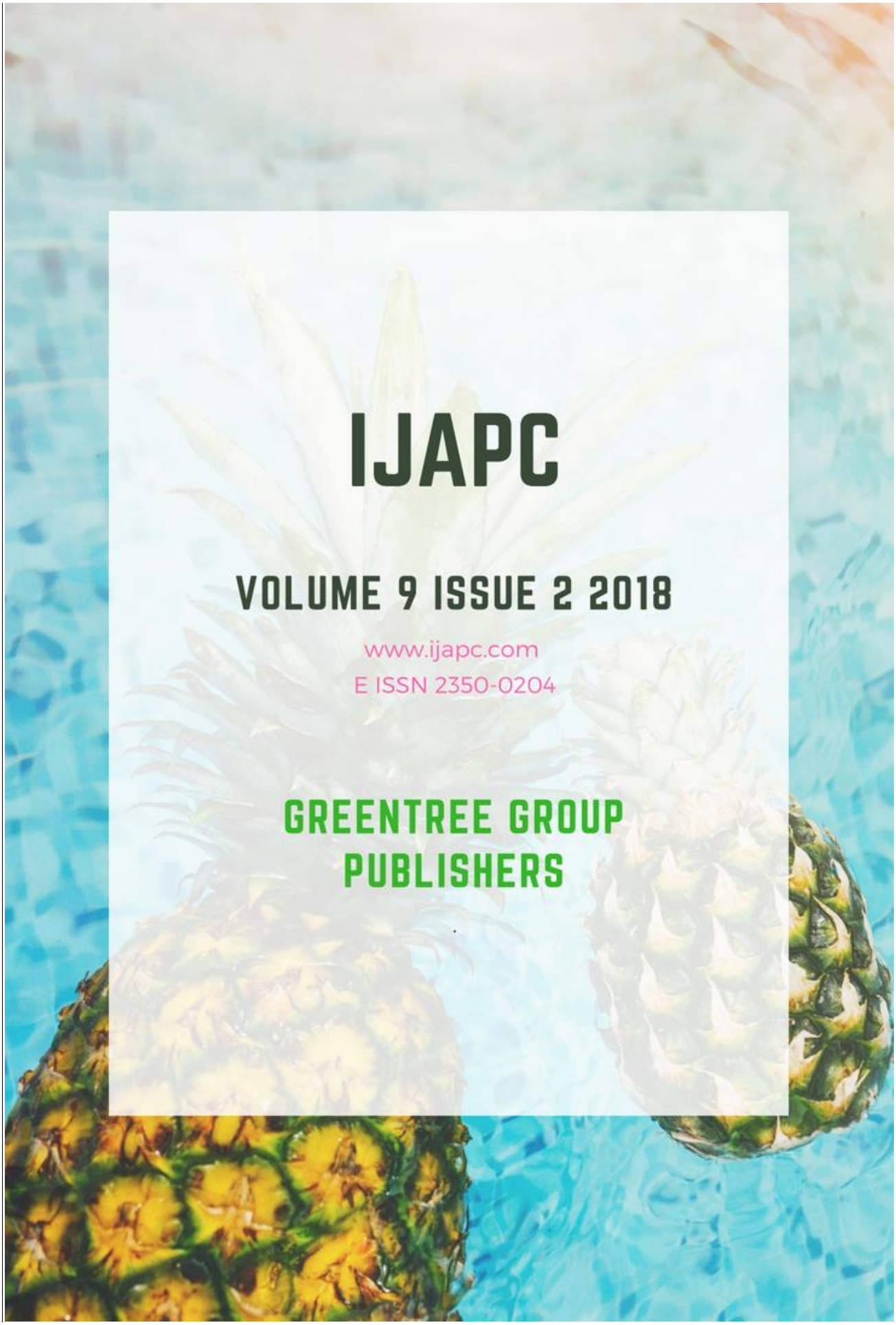

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Ayurvedic Management of Hypothyroidism: A Case Study

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ABSTRACT

Hypothyroidism is the underactivity of the thyroid gland that leads to inadequate production of thyroid hormones and a slowing of vital body functions. Hypothyroidism is the most common endocrine disorder observed in 5% population, mainly females in present time. Thyroxin is the only means for combating this problem in the patients of hypothyroidism. External thyroxin supplementation is not only a burden but it leaves the patients without actually treating the underlying cause. *Ayurveda* plays an important role to rule out the underlying cause and treat it. In *Ayurveda*, it can be correlated with *Kapha dosha dushti*, *Rasavaha Strotasadushti*, *Medadushti*and *Manovaha Strotasa Dushti*. In this case study, the primary aim was to manage Hypothyroidism with *Ayurvedic* medicine. Patient was treated by oral medications and *Panchakarma* therapies like *Vamana*, *Shirodhara*, *Nasya* etc. The present case study has focused effectiveness of *Ayurvedic* therapy in primary hypothyroidism.

KEYWORDS

Hypothyroidism, Kapha Dosha, Rasavaha Strotasa, Medovaha Strotasa, Manovaha Strotus

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INTRODUCTION

Hypothyroidism is the major endocrine disorder seen in general population. It is a condition in which the thyroid gland fails to produce hormone adequately, which may be due to dysfunction of thyroid itself or it may be at the level of Pituitary gland or at the level of Hypothalamus. When it is at the level of thyroid gland, it is called as primary hypothyroidism. This condition leads to the reduction in basal metabolic rate, affect physical and mental growth during infancy or childhood. Females have to be more affected than males (6:1 ratio). It is the most common endocrine disorder after Diabetes. The prevalence of hypothyroidism in India is about 10%[1]. In today's hi-tech and competitive world, people are leading a stressful life and as the thyroid gland is very sensitive to stimuli like stress and anxiety, the global incidence of hypothyroidism is increasing. Recent statistical analysis reveals that deficiency of iodine in the diet is the most common cause of this condition. According to World Health Organization, 2 billion people are iodine deficient worldwide. The relative iodine deficiency causes Goiter and severe deficiency causes Hypothyroidism (in adults) & Cretinism (in children).

As *Ayurvedic* point of view, *Kapha* is vitiated and predominent in hypothyroidism. With *Kapha*, *Rasavaha strotas dushti*, Meda dushti and *Manovaha Strotasa Dushti* also occur. Due to *Jatharagni mandya*, at first *Rasavaha strotasadushti* and *kapha dosh dushti* occurs (sub-dosha affected is *Avalambaka kapha*). The thyroid gland is part of the *Rasavasa strotas* as it is mainly a hypervascular epithelial tissue. *Rasa* and *Kapha Dushti* simulteniously leads to *Meda* and *Manovaha Strotasa Dushti*.

Hypothyroidism is associated with various pathological states that render person dependent on hormone replacement therapy lifelong. Management of hypothyroidism with modern drugs may bring the value of TFT to normal range but the symptoms and side effects are not totally cured. Hence, it calls for the understanding of *ayurvedic* concept of this disease and establishing the management of hypothyroidism through *Ayurvedic* principles.

CASE REPORT

A female patient of 30 years old, housewife at Dist.Osmanabad (Maharashtra, India), OPD registration no. 11222 came in OPD no. 13 of Panchakarma Department in Govt. Ayurvedic College & Hospital Osmanabad, Maharashtra.

Case History:

Patient name- ABC

Age- 30 yrs

Sex – Female

Occupation- Housewife

Weight-72kg

C/O-

- Anorexia, (all these symptoms since 6 months)
- Palpitation,
- Swelling all over body,
- recurrent cough and cold,
- Insomnia,
- Hair loss
- laziness,
- constipation

History of present illness-

Patient was known case of hypothyroidism since 6 months and was taking

Tab Thyroxin 125mcg once a day since last 6months

Tab Alprazolam 0.5mg once at night since 1 month

Syr. Crimaffin 10ml once at night

Past History:

No/h/o- HTN/DM/PTB/BA/Epilepsy/ or any other serious medical illness

No/h/o-Any surgical illness

Family History- NAD

O/E:

GC- Fair, Afebrile

Pulse-70/min

BP- 110/70mg

S/E:

RS- Air entry bilaterally equal and clear

CNS- Conscious and well oriented

CVS- S1S2 normal, no added sound

All routine investigations of patient was within normal limits.

Diagnosis:

Thyroid Function Test - Before treatment hormonal level was

T_3-70, T_4-4.5, TSH- 9.04.

MATERIALS AND METHODS

The patient had complaints of Anorexia, Palpitation, Swelling all over body and insomnia, recurrent cough and cold, hair loss, laziness, constipation since last 6 months.

Ayurvedic management for Hypothyroidism is given as:

Table No.1 – Oral Medication

Table No.2 – *Panchakarma* Procedures

Table No.3 – Allopathic Medication

Table No.4 – Hormonal Level

Table 1 Oral Medication

Sr. no.	Formulations	Dose and Time	Anupana
1.	*Trikatu Churna* (3gm)	BD before meal	Rasapachaka Kwatha (20ml)
2.	*Chitrakadi Vati* (500mg)	BD between meal	Luke Warm water
3.	*Aarogyavardhini vati (500mg)*	BD after meal	Luke Warm water
4.	*Kanchanar guggul* (500mg)	BD after meal	Luke Warm water
5.	*Haritaki Churna* (3gm)	At night	Luke Warm water

Table 2 *Panchakarma* Therapies

Sr. no.	*Panchakarma Therapy*	Formulations	Duration
1.	*Vaman*	*Triphala Ghruta* (450ml) [for *Snehapana*] *Yashtimadhu Phant* (2000ml) + *Madanphala pippali Phant* (100ml) + *Madanphala Churna* (2gm)+ *Vacha Churna* (1gm) + *YashtimadhuChurna* (1gm) + *Saindhav Jal* (2000ml)	
2.	*Nasya*	*Shadabindu Tail*	1month
3.	*Shirodhara*	*Til Tail*(500ml)+*Jatamansi Tail*(300ml)	1month
4.	*Lepa*(Local application) [At Thyroid Region externally]	*Kombadanakhilepa*	

Table 3 Allopathic Medication

Sr. no.	Medicines	Before Treatment	After 1 week	After 15 days	After one and half month	After three months
1.	Tab. Thyroxin	125 mcg	75 mcg	50 mcg	25 mcg	Stopped
2.	Tab. Alprazolam	0.5 mg	Stopped			
3.	Syr. Cremaffin	10 ml	Stopped			

OBSERVATIONS AND RESULTS

- First follow-up (after 1 week) - The symptoms of palpitation, anorexia, insomnia, constipation were reduced but not hair loss and swelling. The same treatment was continued and dose of Tab Thyroxin was further reduced to 75 mcg / day. Tab Alprazolam and Syr. Cremaffin was stopped.
- Second follow-up (after 15 days) - To some extent hair loss and swelling was reduced. The same treatment was continued and dose of Tab Thyroxin was further reduced to 50 mcg / day.
- Third follow up (after one & half month) - No any fresh complaints. Patient was feeling better. Weight was reduced by 3kg. TFT was Normal. Tab *Arogyavardhini* was stopped. Other Treatment continued as same and Tab Thyroxin was further reduced to 25 mcg / day.
- Fourth follow up (after three month) - No any fresh complaints. Patient was feeling better. Weight was reduced by 5 kg. TFT was normal. Then, Tab Thyroxin was totally stopped.

By above treatment patient got 80% relief. Three month follow up was suggested to the Patient for the next one year, along with the TFT report.

Table 4 Hormonal Level

Sr. no.		Before Treatment (2/2/2018)	After one month (3/3/2018)	After one & half month (18/3/2018)	After Three month (6/5/2018)
1.	T_3	70	90	96	110
2.	T_4	4.5	4.8	5.5	8.08
3.	TSH	9.04	8.5	6.8	4.8

DISCUSSION

Initially the patient was taken allopathic medicines for these complaints i.e.Tab. Thyroxin 125mcg, Tab. Alprazolam 0.5mg, Syr. Crimaffin 10ml once at night. By this treatment TFT level became normal but patient was not totally cured symptomatically. As per *Ayurvedic* view, in

these symptoms *Kapha Dosh Dushti*, *Rasadushti*, *Manovaha Strotasa Dushti* and *Meda Dhatudushti* through *jatharagni* and *dhatwagni mandya* was considered.

The treatment was planned based on *Dosha Pratyaneeka Chikitsa* (against the *doshas*) than *Vyadhi PratyaneekaChikitsa* (against the symptoms). Regulating *agni* (digestive power) with *dipanas* (digestive herbs) to increase metabolism is essential, followed with clearing *ama* (toxic buildup in the body) with herbs known as *pachanas*. *Lekhanas*[2] (thermogenic herbs) may be used like Guggulu[3]. At first *Dipana-pachan* and *Anulomana* was done by *Trikatu Churna (Shunthi, Maricha, Pippali*) with *Rasapachaka (Patol Indrayavakutki*) *kwatha*.*Rasa Pachak* improves *Rasagni*, helps to produce normal *Rasa Dhatu*, reduce symptoms caused by *Rasa Dhatu Dushti*. *Chitrakadivati* 500mg BD between meal and *Haritaki Churna* 5gm once at night with lukewarm water was given. *Chitrakadivati* has property of *Aamapachana* and is indicated in *Agnimandya* (digestive insufficiency)[4] and *Haritaki* is indicated as *Anulomana*, hence prescribed.

Trikatu churna serves the purpose of *deepan* (appetizer) and *pachana (digestive*), thus eliminating the root cause of the disease. In hypothyroidism, correcting the *agni* (digestive fire) only at the thyroid level is not sufficient but removing the peripheral resistance is also important i.e. removing the *avarana* (blocking or covering) at the *dhatwagni* (metabolism at tissue level) level. Also, *Pippali* (Piper longum Linn) increases the absorption of selenium which is required for the chemical reaction that converts the less active T_4 to more active T_3[5-7].

Arogyavardhinivati (Gandhaka, Lohabhasma, Abhrakbhasma, shulbabhasma,Triphala,guggul, Chitrakmool, Tikta, Nimbvrukshadal ambu) works basically on the *medas dhatu* and the *dhatwagni* thus digesting and removing the *ama janit medas dhatuvruddhi* (increase in *medas dhatu* that is undigested)[8].

Kanchnar Guggulu (kanchanar twak, Twak, shunthi, pippali, Ela, Tejapatra, guggul) helps to balance the excess *Pitta* and *Kapha doshas* in body as indicated in *Granthi, Arbuda.* It subsides the *Kapha* and *Meda dushti* and helps to reduce the swelling in neck and in goiter. It helps to reduce or break down the deep seated *Kapha* and supports the digestive fire. It also supports proper circulation of blood & promotes elimination of toxins from body[9]. *Guggul (*Commiphora mukul Hook.ex Stocks) is said to be the best *vata* and *medohara* (hypolipidaemic) as per *Aṣṭanga Sangria*. It possesses *laghu* (light), *rukṣha*

(dry), *sukṣhma* (minute) *guṇa*, *uṣṇa virya* (hot potency), *kaṭu vipaka* (pungent in post digestive taste) and *lekhana* (scrapping) property, so it is effective in the management of *Kapha-medas* predominant disorders like hypothyroidism[10].*Chitraka* and *Guggulu* has *lekhana* (Thermogenic) property, hence help to reduce excessive body weight.

Along with oral medicines (as described in Table no.1). *Panchakarma* therapy (as described in Table no.2) is also important in hypothyroidism. After *dipana- pachana* and *snehapana* with *Triphala Ghruta*,*Vaman* is helpful as it subsides the symptoms seen due to *kapha dosh dushti*.*Vamana* is also useful to increase the *jatharagni* and *dhatwagni*.

As hypothyroidism is *urdhwajatrugata vyadhi and also Nasya* plays an important role in its treatment as it helps to cure the Urdhwajatrugata Vyadhi; so this treatment was adopted for hypothyroidism. *Shadbindu Tail* contains *ushna-tikshna dravyas* which causes *shodhana* and *lekhana* of *kapha dosh*. Hence *nasya* with *Shadbindu Tail* is prescribed.

Manovaha strotas Dushti is seen by signs and symptoms of patient (like anorexia, mood swing, etc.). For this, *Shirodhara* is prescribed with *Jatamansi Tail* and *Til Tail*. *Jatamansi* is *Medhya* (intellect promoting) and works like tranquiliser. *Til Tail*, by its *Ushna* property helps to decrease the *Kapha dosha dushti*.

CONCLUSION

Hypothyroidism is not described in *Ayurvedic* classics, but based on clinical presentation; involved factors in hypothyroidism are *Kapha Dosha, Rasa* and *Medovaha strotas* as well as *Manovaha strotas*. *Ayurveda* attempts to heal the root imbalance of hypothyroidism rather than treat symptoms for remainder of patient's life. Management of hypothyroidism with modern drugs may bring the value of TFT to normal range but the symptoms and side effects are not totally cured. Case has been treated with above oral medication and *Panchakarma* therapies which has been given the satisfactory results.

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