

## Case Report

# Role of Ayurvedic management in post natal Hypothyroidism - A case report

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### Abstract:

Hypothyroidism is a condition in which the body lacks sufficient Thyroid hormone. Thyroid hormone plays a vital role in physiology and metabolism, chief complaint of patients are weight gain, fatigue, weakness, cold intolerance and constipation. In present study, the hypothyroid case in post natal period has been successfully treated with an Ayurvedic concept of *Shleshma (Kapha Dosha)*, *Medohar* (removal of fat), *Aamdoshahar* (removal of toxins) and *Dhatuvagni Vardhaka* (increase cell metabolism) formulation. Weight and Thyroid profile were important tools for assessment in this study. Two months treatment showed marked difference in TSH and weight reduced from 55.95  $\mu$ IU/dl to 19.42  $\mu$ IU/dl and from 64 kg to 60kg respectively. Combination of *Kanchanar Guggulu* and *Aarogyavardhini Vati* as Ayurvedic formulations, found highly significant in this hypothyroid case. Patient was completely treated by Ayurvedic medicines only, under strict supervision.

Key Words: *Aarogyavardhini Vati*, Ayurved, Hypothyroidism, *Kanchanar Guggulu*

### Introduction:

There is a growing urgency to create awareness of Thyroid disorders for early diagnosis and treatment. This will reduce complications. Hypothyroidism, commonly categorized under the cluster of iodine deficient disorders (IDDs), is a common health issue in India. Hypothyroidism is a condition with various causes [1]. A recent cross-sectional, multi-city study in India related to Thyroid dysfunction states that Hypothyroidism is highly prevalent amongst the surveyed population with one out of ten people being diagnosed with the condition. Hypothyroidism was found to be a common form of Thyroid dysfunction affecting 10.95% of the study population. The older population (above the age of 35 years) seemed to be at higher risk of hypothyroidism than the younger population (13.11% vs. 7.53%). Women were three times more likely to be affected by hypothyroidism than men (15.86% vs. 5.02%), especially those were from midlife (46-54 years) [2,3].

Hypothyroidism in post partum phase falls under transient Thyroiditis. Post partum Thyroiditis tends to recur after subsequent pregnancies and eventually patients progress over a period of years to permanent hypothyroidism. Surveys have shown that transient biochemical disturbances of thyroid function occur in 5 to 10 % of women within 6 months of delivery. Symptoms of thyroid function are rare and there is no association between postnatal depression and abnormal thyroid function

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test. Symptomatic thyrotoxicosis presenting for first time within 12 months of childbirth is likely to be due to post partum Thyroiditis and followed by hypothyroidism [4].

There are two main causes of hypothyroidism. First is caused by inflammation of Thyroid gland which is caused by autoimmune Thyroiditis in which large number of Thyroid cell is incapable of producing Thyroid hormone. Second cause is due to pituitary gland as it does not produce enough quantity of TSH which is necessary for producing Thyroid hormone. Post partum hypothyroidism comes under first group. Symptoms of Hypothyroidism includes fatigue, weakness, weight gain, coarse dry hair, dry rough pale skin, hair loss, cold intolerance, muscle cramp, muscle ache, constipation, depression, irritability, memory loss, abnormal menstrual cycle and decreased libido.

Thyroid hormone activates nuclear receptors, increases cellular metabolic activity, and stimulates carbohydrates and fat metabolism. Screening in such cases is done by serum anti thyroid peroxidase antibodies in early pregnancies but it is not recommended for every women. Thyroid function should be tested 4 to 6 week post partum in those in those cases with personal history of thyroid disease, goiter or other autoimmune disease [4]. The clinical course and treatment are similar to painless sub acute Thyroiditis. Occasionally it may be necessary to prescribe Prednisolone 40mg. daily for 3 to 4 week. Anti Thyroid drugs are of no benefit because thyroid hormone synthesis is impaired rather than enhanced. Careful monitoring of thyroid function and symptoms is required so that T4 can be prescribed temporarily in the hypothyroid phase.

Complete etiology, signs, symptoms, pathophysiology of obese is explained in Ayurvedic texts. *Ati Sthula Vyakti* i.e. obese resemble with this Thyroid patient. *Aacharya Charak* has stated *Karshan* Therapy by means of *Shleshma Medohar* treatment as principle of management in such cases. *Sthul Purusha* (obese) mentioned as a *Ninditpurusha* (unappreciated) among *Ashtaunindita* (eight unappreciated). *Guru, Madhur, Sheet, Snigdhabhojana, Avyayam* (lack of exercise), *Avyavay* (lack of sex), *Divaswap* (day sleep), *Achintan* (stress free) are given as *Hetus* of *Sthaulya*. *Sthaulya Lakshanas* (symptoms) are very well described by *Acharya Charak, Sushruta, Vagbhata* and also management for *Sthaulya* is given in details

[5].

#### Case report:

A 23 years old lady visited to OPD with the symptoms of fatigue, severe weight gain, weakness, puffiness on face, swelling on Thyroid region, cold intolerance, constipation, hair loss since 6 months, history of fever not reported by patient Weight 64 kg and height 154cm. Body Mass Index (B.M.I.) was 27. She delivered a baby before 9 months. In her pregnancy she had normal Thyroid functions as per her previous reports.

The patient presented with symptoms of hypothyroidism, clinically examined and confirmed by diagnostic criteria as per international standards by Thyroid profile. As per reports i.e. Low Triiodothyroxine (T3), T4 And high TSH; patient was considered for present study. Looking to the pattern of symptoms a routine investigation along with Thyroid profile was done. In her first report she had decreased level of T3, T4 and increased level of TSH i.e. 155  $\mu$ IU/dl. So she has been diagnosed as a case of hypothyroidism.

#### Advised treatment and its basis:-

*Agnideepana, Pachana, Shleshma Medohar-Granthivilyana* and *Meddhatupachaka* treatment has been considered to be the principle of management for this case. *Kanchanar Guggulu* is mentioned as medicine of *Arbud, Apachi, and Granthi* [6,7]. Therefore it was selected for present study. *Aarogyavardhini Vati* is *Deepana Pachana, Raktashodhana* and *Shothahar*. As per hypothesis in hypothyroidism, drug of choice must have above properties. [8]; hence this combination was selected.

1. *Kanchanar Guggulu* 250 mg 2 tab bid after meal. *Vyanodan Kal*
2. *Aarogyavardhini Vati* 250 mg 2tab bid before meal. *Apan Kal* [9]. for 2 months along with lukewarm water were prescribed. Detail ingredients of *Kanchanar guggulu* and *Aarogyavardhini vati* are given in table no.1 and 2 respectively.

#### Observations and results:-

After two months patient showed symptomatic relief in fatigue, weakness, constipation and hair loss. Weight reduced by 4kg B.M.I. fall to 25.03. As per investigation TSH was

155  $\mu$ IU/dl after the course of treatment it reduces upto 19.42  $\mu$ IU/dl. Patient has advised to stop treatment and after a period of 2 months follow up it reduces to 4.03  $\mu$ IU/dl. T3 and T4 were on lower side i.e. 31.4 ng/dl and 0.80  $\mu$ g/dl before treatment. After treatment, it raises to 76.2 ng/dl and 2.90  $\mu$ g/dl. That means Thyroid cells get stimulated to secrete thyroid hormone. Then treatment has been stopped. After good span of follow up T3 and T4 levels were 61ng/dl and 3.6  $\mu$ g/dl. Repeat Thyroid profile done and T3, T4 and TSH were normal as per international standards and symptomatically showed marked improvements. All findings depicted in comparative form in table no.3 and graph no.1.

### Discussion

This study was conducted to find the solution for normalizing thyroid function without external hormone and to reduce weight. In present study, primary outcome i.e. normal thyroid function has been achieved and secondary outcome weight loss according to B.M.I. TSH is reduced to normal level and side by side T3 and T4 increased and are in normal limits. This indicates that thyroid gland is stimulated with its normal function. This study gives a huge hope for such diseases and alternate solution for treatment. But another side of coin is that a single case does not establish the hypothetical statement completely, large data is required to test the hypothesis. Cohort required for such studies are found in specific phase of female life. This post partum phase does not occur frequently. Therefore, to conduct such type of study holistic approach is required. A team of Obstetricians and an Endocrinologist with Ayurvedic physician can jointly work on such studies. Secondly in this case, no immediate side effects of the formulation reported but one cannot comment of long term side effect at this time at the same time its effect on infant were not observed. These formulations are time tested and safe as per several Ayurvedic researches.

*Kanchanar Guggulu* is a potent formulation for all types of *Granthi* (gland), *Kapha* and *Aamdosh* as per text. Contents are *Kanchanar*, *Triphala* and *Trikatu*, which are *Aamdoshahar*, *Kaphaavilayankar*. It removes *Kapha* and *Aam*. It helps in proper functioning of *Granthi*, digestive system and lymphatic system also. It avoids accumulation of morbid humours in Thyroid gland. It eliminates toxins from Thyroid glands reduces inflammation. Its main

ingredients includes *Kanchanar* (*Bauhinia variegata* L.), *Varuna* (*Crataeva nurvala*), *Triphala*, *Trikatu*, *Trijataka* also useful in hypothyroidism. *Kanchanar Guggulu* supports proper function of the lymphatic system, balances *Kapha Dosh*, promotes elimination of inflammatory toxins; it is alterative, anti-inflammatory and tonic and is administered in cysts, malignant ulcers, syphilis, fistula, scrofula, sinus, etc., *Kanchanar* is very useful in extra growth or tumors and helps in reducing bleeding [10].

Ingredients of *Aarogyavardhini Vati* are *Raktashodhaka*, *Dhatvaginvardhka*, *Aamdoshapachaka* and *Meddhatupachaka* which are key factors in hypothyroidism so far. Key ingredients of it are *Kutki* (*Picrorrhiza Curroa*) which has anti-inflammatory action [11]. *Chitraka* works on metabolism which was main complaint of this disease. *Shilajatu* helps in reducing weight and *Medadhatu*. *Abhrak Bhasma* and *Loha Bhasma* has property of *Granthivishahar* and *Medohar* respectively.[12] In this case external hormone was not administered, as allopathic science prescribing for the same. So it is better option to force our organ to function properly by Ayurvedic formulations and concept

### Conclusion:

Management of Hypothyroidism is possible based on Ayurvedic fundamental principles. *Kapha*, *Aampachaka*, *Dhatvaginvardhka*, *Raktashodhaka*, *Shothghna* (oedema) medicines such as *Kanchanar Guggulu* and *Aarogyavardhini Vati* were found significant to treat hypothyroidism.

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**Table no.1:- Ingredients of *Kanchanar Guggulu***

Sr. No	Name	Botanical Name	Part Used
1	<i>Guggulu</i>	<b>Commiphora Mukul</b>	Oleoresin
2	<i>Kanchanar</i>	<b>Bauhinia Variegata</b>	Bark
3	<i>Amalaki</i>	<b>Em blica Officinalis</b>	Fruit
4	<i>Bibhitaki</i>	<b>Terminelia Belerica</b>	Fruit
5	<i>Haritaki</i>	<b>Terminelia Chebula</b>	Fruit
6	<i>Sunthi</i>	<b>Zinziber Officinale</b>	Rhizome
7	<i>Marciha</i>	<b>Piper Nigrum</b>	Fruit
8	<i>Pippali</i>	<b>Piper Longum</b>	Fruit
9	<i>Varun</i>	<b>Crataeva Nurvula</b>	Bark
10	<i>Ela</i>	<b>Elettaria Cardamomum</b>	Seeds
11	<i>Twak</i>	<b>Cinnamomum Cassia</b>	Bark
12	<i>Tamalpatra</i>	<b>Cinnamomum Tamal</b>	Leaf

**Table no.2:- Ingredients of *Aarogyavardhini Vati***

Sr. No	Name	Botanical Name	Part Used
1	<i>Kutki</i>	<i>Picrrhorhiza Curroa</i>	Root
2	<i>Chitraka</i>	<i>Plumbago Zeylanica</i>	Root
3	<i>Amalaki</i>	<i>Em blica Officinalis</i>	Fruit
4	<i>Bibhitaki</i>	<i>Termenelia Belerica</i>	Fruit
5	<i>Haritaki</i>	<i>Termenelia Chebula</i>	Fruit
6	<i>Guggulu</i>	<i>Commiphora Mukul</i>	Oleoresin
7	<i>Shilajatu</i>	Black bitumen	
8	<i>Parad</i>	<i>Processed Mercury</i>	
9	<i>Gandhaka</i>	<i>Processed Sulphur</i>	
10	<i>LohBhasma</i>	<i>Processed Ferrous</i>	
11	<i>Abhraka</i>	<i>Processed Mica</i>	
12	<i>Tamra</i>	<i>Processed Copper</i>	
13	<i>Nimba</i>	<i>Azadiracta Indica</i>	Leaf

Table no.3: Comparative values of TSH, T3, T4 and weight in studied case.			
Parameters	Before Treatment 6/10/2014	After treatment 23/12/2014	Follow up 03/03/2015
T <sub>3</sub>	31.4 ng/dl	76.2 ng/dl	61 ng/dl
T <sub>4</sub>	0.80 µg/dl	2.90 µg/dl	3.60 µg/dl
TSH	155.95 µIU/dl	19.42 µIU/dl	4.03 µIU/dl
Weight	64 Kg	60 kg	60 kg

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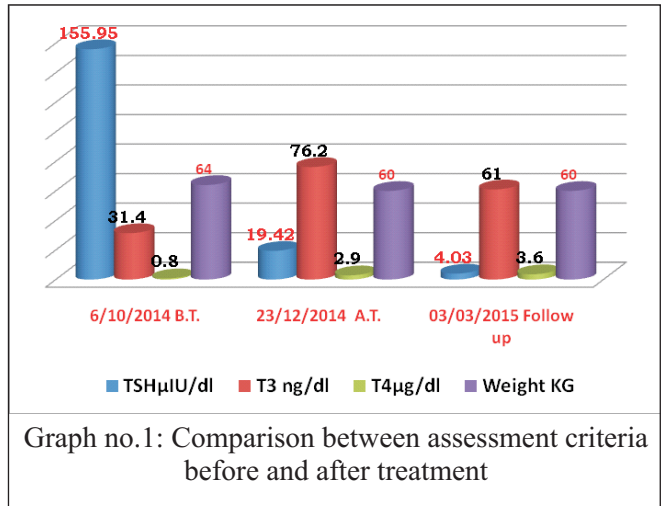
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