



Management of Sub-Clinical Hypothyroidism through Ayurveda- A Case Report.

Dr. Abhinesh

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ABSTRACT:

Subclinical hypothyroidism is characterized by elevated thyroid-stimulating hormone (TSH) levels with normal free thyroxine (T4) levels, usually present no symptoms. general complaints like fatigue, weight gain, and cold intolerance maybe seen. in Ayurveda, this condition can be linked to imbalances of the *Kapha* and *Vāta doṣa*, while *Pitta* playing a role in specific symptoms. The management of subclinical hypothyroidism in *āyurveda* focuses on restoring hormonal balance through diet, lifestyle changes, herbal medicines, and *Pañcakarma* therapies and *yoga*. In This case report discusses the Ayurvedic management of a 30-year-old male presenting with symptoms like loss of appetite, fatigue, heaviness in the body, and intolerance to cold. After detailed assessment, the patient underwent *Pañcakarma* therapy along with medications, dietary adjustments, and lifestyle modifications. Over a 90-day treatment period, the patient showed significant improvement in symptoms and lab parameters, including a normalization of TSH levels. Ayurvedic treatments, including *dīpana* (digestive stimulants) and *pācana* (digestive therapies), along with *Abhyanga* (oil massage), were effective in alleviating symptoms related to *Āma doṣa* (toxin accumulation). The patient's overall vitality improved, and no fresh complaints were reported during the follow-up period. This case supports Ayurveda's potential as an effective approach in managing subclinical hypothyroidism. Further studies on larger populations are suggested to validate these findings.

Introduction:

Subclinical hypothyroidism is a condition in which the thyroid gland becomes underactive but does not cause obvious clinical signs. Subclinical hypothyroidism is usually diagnosed when a blood test shows free thyroxine (T4) within the normal range but thyroid-stimulating hormone (TSH) levels are elevated¹. Although some symptoms such as fatigue, weight gain, mood swings, and intolerance to cold may appear in an individual, there are no obvious symptoms of the disease. *āyurveda* considers this disorder to be caused by an imbalance in the *Kapha* and *Vāta doṣa*, with some involvement of *Pitta* in the specific symptoms.² *āyurveda* manages the hormonal balance through medication, diet, lifestyle changes and *yoga*. Worldwide, it affects between 4% and 10% of the general population, and the annual progression rate is 4% to 5%. Women, particularly post-menopause, are more affected than men, with a female-to-male ratio ranging from 2:1 to 8:1 and prevalence rates in women between 8% and 10%. In view of the age factor, older adults, especially over 60, show a prevalence between 6% and 20% but are rare in children. Geographically, iodine-deficient areas show higher rates. Special populations like pregnant women (2%–5% prevalence) and individuals with autoimmune thyroiditis, diabetes, or other comorbidities are more prone to disease. for the progression to overt hypothyroidism include TSH levels above 10 IU/mL, the presence of anti-TPO antibodies, and a positive family history to thyroid disorders.³

Patient information:

A 30-year-old male patient came in OPD with complaints of loss of appetite, generalised weakness, fatigue, burning sensation in abdomen, heaviness in body, feeling of mild fever, and intolerance to cold exposure. He had been suffering from these complaints for a year but not reported them to any healthcare system. There was no previous history of diabetes, hypothyroidism, hypertension, asthma, or tuberculosis. but was positive family history. History revealed that he has a sedentary lifestyle, frequent day sleep, and 1-3 times/week fast food and hotel food consumption. His appetite was not so good, the bowel was not proper, occasionally he suffered from unsatisfactory evacuation, urine was normal in frequency, and sleep was disturbed. He usually sleeps late at night, around 1-3 AM.

¹ Surks, M. I., & Ortiz, E. (2006). "Subclinical thyroid disease: Scientific review and guidelines for diagnosis and management." *JAMA*, 291(2), 228-238.

² Pole, S. (2013). *Ayurvedic Medicine: The Principles of Traditional Practice*. Elsevier Health Sciences.

³ Vanderpump, M. P. J. (2011). "The epidemiology of thyroid disease." *British Medical Bulletin*, 99(1), 39-51

on general examination, observed made that *Agni* was found *Maṇḍa* (weak), *Koṣṭha* was *mṛdu*. *Bala* (strength) was found to be *Alpa* (less) and *śarīrika Prakṛti* (body constitution) was dominance of *Kapha-Vāta*. After history taking, he was advised biochemical investigations, CBC, erythrocyte sedimentation rate (ESR), lipid profile, and thyroid profile. His ESR and S. TSH were found raised and lipid profile deranged.

On march 7, 2024, the patient was come in OPD, he advised prior to oral medication performing whole-body oleation (*abhyanga*) for the 7 days, for *koṣṭha Shuddhi Eraṇḍabhṛst harītaki* advised before sleep. *Dhānyaka Siddha Jala* (medicated water) for whole days. *Dashmūla kvāth* 50ml BD empty stomach, a combination of *copacīnī Curṇa* 3 g, *punarnava mandūra* 250 mg, and *akīk piṣṭī* 125 mg BD advised after food.

After assessing the *Bala* (body status) of the patient, he was advised to take *Mudgayūṣa* (soup made of green gram) for lunch and dinner.





After completion of treatment, tests were performed for thyroid function and lipid profile, CBC, and ESR.






Duration	Consequences
• visited NIA OPD on 07/3/2024	loss of appetite, generalised weakness, fatigue, burning sensation in abdomen, heaviness in body, feeling of mild fever, and intolerance to cold exposure.
• Follow-up at 15 days	Improvement in fatigue & sleep
• follow-up at 30th day	Appetite slightly improved, bowel motion improved.
• Follow-up at 45th day	Burning sensation slightly persist
• Follow-up at 60th day	No fresh complaints.
• follow-up at 75th day	No fresh complaints
• follow-up at 90th day (6/6/2024)	No fresh complaints

Follow-up- Laboratory tests were conducted after two to three months to reassess the patient's condition, and the patient was advised to visit the hospital every two weeks. There was an uneven follow-up period. on repeating the thyroid profile, which revealed a trend of restoration to normalcy, he did not report any complaints.

Complaints	Intervention	Duration
loss of appetite, generalised weakness, fatigue, burning sensation in abdomen, heaviness in body, feeling of mild fever, and intolerance to cold exposure.	<i>Dhānyaka Siddha Jala</i> (5gm in 3 Liter water reduce to 2.5 litre) <i>copacīnī Curṇa</i> 3 gm BD <i>akīk piṣṭī</i> 125mg BD <i>punarnava mandūra</i> 250mg BD <i>Dashmūla kvātha</i> 50ml BD empty stomach <i>Eraṇḍabhṛst harītaki</i> 5gm HS <i>Pañcakarma</i> therapy- sarvasarīra abhyamga for 7 dyas.	15 days
loss of appetite, generalised weakness, burning sensation in abdomen and intolerance to cold exposure.	<i>Madhusnuhī rasāyana</i> 10gm od in morning. Other same medicine <i>Pañcakarma</i> therapy- <i>Siroabhyanga</i> with <i>kṣīra balā taila</i> .	15 days
burning sensation in abdomen, intolerance to cold exposure	<i>copacīnī Curṇa</i> 3 gm BD <i>akīk piṣṭī</i> 125mg BD <i>punarnava mandūra</i> 250mg BD <i>Pravāla piṣṭī</i> 125mg BD	15 days
Sore throat, cough	Stopped all previous medicine <i>Sitopaladi curna</i> 3gm BD <i>Godantī Bhasma</i> 250mg BD <i>Gojivadi kvatha</i> 50 ml BD empty stomach	15 days

No fresh complaints	<i>copacīnī Curṇa</i> 3 gm BD <i>akīk piṣṭī</i> 125mg BD <i>punarnava mandūra</i> 250mg BD <i>Dashmūla kvātha</i> 50ml BD empty stomach <i>Eraṇḍabhṛst harītaki</i> 5gm HS	15 days
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Follow-up date	Investigation advised	Lab. Investigation reports																																																		
7/3/24	CBC, ESR, LIPID PROFILE, THYROID PROFILE	<div style="text-align: center;">  <p>NATIONAL INSTITUTE OF AYURVEDA DEEMED TO BE UNIVERSITY JORAWAR SINGH GATE, AMHR ROAD JAIPUR-302002 PH.NO: 0141-2635816, Email id- centrallabnia@gmail.com</p> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Name : Ashish</td> <td>Order Date : 07/03/2024 09:16 AM</td> <td>Sample Collection at : 07/03/2024 09:17 AM</td> </tr> <tr> <td>Age/Sex : 30 Year / M</td> <td>Order Id : 73373</td> <td>Sample Accepted Date & Time : 07/03/2024 10:55 AM</td> </tr> <tr> <td>Mob. : 8619489611</td> <td>Ref By : Dr. Ash Kumar Panja Professor</td> <td>Authenticated Date & Time : 07/03/2024 11:57 AM</td> </tr> <tr> <td>Patient Address : JAIPUR</td> <td></td> <td></td> </tr> <tr> <td>OPD/IPD/Research/Project No. : 03489</td> <td></td> <td></td> </tr> </table> <div style="display: flex; justify-content: space-between; align-items: center;">   </div> <p>Sample Type: Serum Instrument: COBAS C 311</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Test</th> <th>Method</th> <th>Result</th> <th>Unit</th> <th>Ref. Interval</th> </tr> </thead> <tbody> <tr> <td>TRIGLYCERIDES</td> <td>Enzymatic colorimetric</td> <td>224.6</td> <td>mg/dL</td> <td>< 150</td> </tr> <tr> <td>TOTAL CHOLESTEROL</td> <td>Enzymatic</td> <td>205.1</td> <td>mg/dL</td> <td>Desirable: < 200 Borderline: 200 - 239 High: >= 240</td> </tr> <tr> <td>HDL CHOLESTEROL</td> <td>Homogeneous enzymatic</td> <td>34.7</td> <td>mg/dL</td> <td>No Risk: > 55 Moderate Risk: 35 - 55 High Risk: < 35</td> </tr> <tr> <td>LDL CHOLESTEROL</td> <td>Homogeneous enzymatic colorimetric assay</td> <td>124.3</td> <td>mg/dL</td> <td>Optimal: < 100 Near optimal: 100 - 129 Borderline High: 130 - 159 High: 160 - 189 Very High: > 190</td> </tr> <tr> <td>VLDL CHOLESTEROL</td> <td>Calculated</td> <td>37.28</td> <td>mg/dL</td> <td>Up to 80</td> </tr> <tr> <td>TOTAL CHOLESTEROL : HDL CHOLESTEROL RATIO</td> <td>Calculated</td> <td>4.67</td> <td></td> <td>3 - 4 : 1</td> </tr> </tbody> </table> <p>Interpretation:</p> <p>TRIGLYCERIDES Increase: Diabetes, Pancreatitis, Hypothyroidism, Liver disease, Alcoholism, Myocardial infarction. Decrease: Malnutrition, Hyperthyroidism, Hyperparathyroidism, malabsorption syndrome.</p> <p>TOTAL CHOLESTEROL Increase: Pregnancy, Obesity, smoking, Alcohol, Renal Failure, Hypothyroidism. Decrease: Acute illnesses such as heart attack, Malnutrition, Liver disease, Myeloproliferative diseases, Chronic anaemias, infection, and stress.</p> <p>HDL CHOLESTEROL Increase: Hyperalphalipoproteinemia, Regular physical activity or exercise, Weight loss, Chronic liver disease Decrease: Uncontrolled diabetes, Hepato cellular disease, Chronic renal failure, nephrosis, uremia, Cholestasis</p> <div style="text-align: right; margin-top: 20px;">  Dr. Sona Goyal Pathologist (MBBS, MD) </div> <div style="font-size: small; margin-top: 20px;"> Order Date: 07/03/2024 09:16 AM Print Date: 07.03.2024 14:42 Page 1 of 2 Note: Results are subjected to normal fluctuations. Please co relate clinically. Not Valid for medico legal purpose. Tolerance Range depends on reagent used and provided by their company. </div>	Name : Ashish	Order Date : 07/03/2024 09:16 AM	Sample Collection at : 07/03/2024 09:17 AM	Age/Sex : 30 Year / M	Order Id : 73373	Sample Accepted Date & Time : 07/03/2024 10:55 AM	Mob. : 8619489611	Ref By : Dr. Ash Kumar Panja Professor	Authenticated Date & Time : 07/03/2024 11:57 AM	Patient Address : JAIPUR			OPD/IPD/Research/Project No. : 03489			Test	Method	Result	Unit	Ref. Interval	TRIGLYCERIDES	Enzymatic colorimetric	224.6	mg/dL	< 150	TOTAL CHOLESTEROL	Enzymatic	205.1	mg/dL	Desirable: < 200 Borderline: 200 - 239 High: >= 240	HDL CHOLESTEROL	Homogeneous enzymatic	34.7	mg/dL	No Risk: > 55 Moderate Risk: 35 - 55 High Risk: < 35	LDL CHOLESTEROL	Homogeneous enzymatic colorimetric assay	124.3	mg/dL	Optimal: < 100 Near optimal: 100 - 129 Borderline High: 130 - 159 High: 160 - 189 Very High: > 190	VLDL CHOLESTEROL	Calculated	37.28	mg/dL	Up to 80	TOTAL CHOLESTEROL : HDL CHOLESTEROL RATIO	Calculated	4.67		3 - 4 : 1
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(CAP Hematology and C.L.S.) practical haematology, Dacie & Lewis 11th Editions. Abbreviations:- (H.F.I.)-Hydrodynamic Focusing Impedance, (S.L.S.) -Sodium Lauryl Sulphate, (P.H.D.)- Pulse Height Detection, (F.F.C.)-Fluorescence Flow Cytometry.</p> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;">   </div> <p style="text-align: right;">Dr. Sona Goyal Pathologist (MBBS, MD) Instrument: Cobas e 411</p> <div style="display: flex; justify-content: space-between; font-size: small; margin-top: 20px;"> Order Date: 07/03/2024 11:45 AM Print Date : 07.03.2024 14:41 Page 1 of 2 </div> <p style="text-align: center; font-size: x-small; margin-top: 5px;">Note: Results are subject to normal fluctuations. Please correlate clinically. Not Valid for medico-legal purpose. 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06/06/24

CBC, ESR, LIPID PROFILE, THYROID PROFILE

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PH.NO.: 0141-2635816, Email id- centrallabnia@gmail.com

Name	: Jankid	Order Date	: 06/06/2024 11:45 AM	Sample Collection at	: 06/06/2024 11:47 AM
Age/Sex	: 30 Year / M	Order Id	: 65087	Sample Accepted Date & Time	: 06/06/2024 01:02 PM
Mob.	: 8619459511	Ref By	: Dr. Ash Kumar Panja Professor	Authenticated Date & Time	: 06/06/2024 02:12 PM
Patient Address	: JAIPUR				
ORD/PR/Research/Project No.	: 03-489				



Sample Type: EDTA Whole Blood **Complete Blood Count** Instrument: Sysmex XN-550

Test	Method	Result	Unit	Bio.ref.Interval
Total Red Blood Cell	R.F.C	5.3	x 10 ⁶ /µl	4.5 - 5.5
Haemoglobin	SLS	14.4	g/dL	13 - 17
Haematocrit	P.H.D	37.5	%	40 - 50
MCV	Calculated	84.4	fL	83 - 101
MCH	Calculated	31.3	pg	27 - 32
MCHC	Calculated	34.2	g/dL	31.5 - 34.5
RDW-CV	Calculated	13.4	%	11.6 - 14.0
RDW-SD	Calculated	44.6	%	39 - 46
WBC Total	F.F.C.	7.46	x 10 ³ /µl	4.0 - 10.0
Differential Leucocyte Count				
Neutrophils	F.F.C. / Microscopy	56.0	%	40 - 80
Lymphocytes	F.F.C. / Microscopy	28.6	%	20 - 40
Eosinophils	F.F.C. / Microscopy	5.1	%	0 - 6
Monocytes	F.F.C. / Microscopy	9.3	%	2 - 10
Basophils	F.F.C. / Microscopy	0.4	%	0 - 2
Absolute Neutrophils Count	Calculated	5.76	x 10 ³ /µL	2.0 - 7.0
Absolute Lymphocytes Count	Calculated	2.93	x 10 ³ /µL	1.0 - 3.0
Absolute Eosinophils Count	Calculated	0.49	x 10 ³ /µL	0.02 - 0.5
Absolute Monocytes Count	Calculated	1.00	x 10 ³ /µL	0.2 - 1.0
Absolute Basophils Count	Calculated	0.03	x 10 ³ /µL	0.02 - 0.1
PLT	H.F.F.	256	x 10 ³ /µL	150 - 410

Interpretation:
Remarks / References:-
The Current recommendations state that the absolute count is the preferred reporting method for the WBC differential. (CAP Hematology and C.L.S.) practical haematology, Dacie & Lewis 11th Edition.
Abbreviations: (R.F.C.)Hydrodynamic Focusing Impedance, (S.L.S.) Sodium Lauryl Sulphate, (P.H.D.) Pulse Height Detection, (F.F.C.)Fluorescence Flow Cytometry.

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Name	: Jankid	Order Date	: 06/06/2024 11:17 AM	Sample Collection at	: 06/06/2024 11:17 AM
Age/Sex	: 30 Year / M	Order Id	: 73373	Sample Accepted Date & Time	: 06/06/2024 11:09 AM
Mob.	: 8619459511	Ref By	: Dr. Ash Kumar Panja Professor	Authenticated Date & Time	: 06/06/2024 11:57 AM
Patient Address	: JAIPUR				
ORD/PR/Research/Project No.	: 03-489				

Sample Type: Serum **Thyroid Function Test** Instrument: Cobas e 411

Test	Method	Result	Unit	Bio.ref.Interval
T3 (Tri-Iodothyronine)	Electrochemoluminescence	1.25	ng/mL	0.8-2.0
T4 (Tetra-Iodothyronine)	Electrochemoluminescence	8.31	µg/dL	5.1-14.1
TSH (Thyroid Stimulating Hormone)	Electrochemoluminescence	4.89	µIU/mL	0.270-4.20

Order Date: 06/06/2024 11:45 AM Print Date: 06/06/2024 16:41 Page: 1 of 2
Note: Results are subject to our internal functions. Please do not rely on them. Not Valid for medical legal purpose.
Reference Range depends on reagent used and provided by their company.

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Name	: Jankid	Order Date	: 06/06/2024 11:17 AM	Sample Collection at	: 06/06/2024 11:17 AM
Age/Sex	: 30 Year / M	Order Id	: 73373	Sample Accepted Date & Time	: 06/06/2024 11:09 AM
Mob.	: 8619459511	Ref By	: Dr. Ash Kumar Panja Professor	Authenticated Date & Time	: 06/06/2024 11:57 AM
Patient Address	: JAIPUR				
ORD/PR/Research/Project No.	: 03-489				

Sample Type: Serum **Lipid Profile** Instrument: COBAS C 311

Test	Method	Result	Unit	Bio.ref.Interval
TRIGLYCERIDES	Enzymatic colorimetric	133.3	mg/dL	< 150
TOTAL CHOLESTEROL	Enzymatic	126.3	mg/dL	Desirable: < 200 Borderline: 200 - 239 High: ≥ 240
HDL CHOLESTEROL	Homogeneous enzymatic	55.8	mg/dL	NO RISK: > 55 Moderate Risk: 35 - 55 High Risk: < 35
LDL CHOLESTEROL	Homogeneous enzymatic colorimetric assay	69.8	mg/dL	Optimal: < 100 Near optimal: 100 - 129 Borderline High: 130 - 159 High: 160 - 189 Very High: > 190
VLDL CHOLESTEROL	Calculated	50.66	mg/dL	Up to 80
TOTAL CHOLESTEROL : HDL CHOLESTEROL RATIO	Calculated	4.95		3 - 4.1

Interpretation:
TRIGLYCERIDES
Increase: Diabetes, Pancreatitis, Hypothyroidism, Liver disease, alcoholism, myocardial infarction.
Decrease: Malnutrition, hyperthyroidism, Hyperparathyroidism, malabsorption syndrome.
TOTAL CHOLESTEROL
Increase: Pregnancy, Obesity, Smoking, Alcohol, renal failure, Hypothyroidism.
Decrease: Acute illnesses such as heart attack, Malnutrition, Liver disease, Myeloproliferative diseases, Chronic anemia, infection, and stress.
HDL CHOLESTEROL
Increase: Hyperlipoproteinemia, Regular physical activity or exercise, Weight loss, Chronic liver disease
Decrease: Uncontrolled diabetes, Hepatocellular disease, Chronic renal failure, nephrosis, uremia, Cholestasis

Dr. Sona Goyal
Pathologist (MBBS, MD)

End Of Report

Order Date: 06/06/2024 11:17 AM Print Date: 06/06/2024 16:41 Page: 1 of 2
Note: Results are subject to our internal functions. Please do not rely on them. Not Valid for medical legal purpose.
Reference Range depends on reagent used and provided by their company.

Discussion: Treatment of disease should be by addressing the underlying imbalances of *doṣa*, *duṣya*, and *agni*. The therapeutic strategy includes the use of *nidāna parivarjana* (removal of causative factors) by dietary and lifestyle modification, medicines (*samśamana cikitsā*), and *Pañcakarma* therapies, all aimed at restoring the body's *doṣa*, *duṣya* balance, and *agni vardhan cikitsā*, improving thyroid function.

Conclusion:

The patient in the present case study had no other main complaints related to hypothyroidism except poor appetite and constipation, fatigue, intolerance to cold. Keeping in view the concept of ama dosha, *Samśamana Cikitsā* was chosen for the treatment with *Dīpana Pācana* as the main therapy. ⁴*Abhyamga* was prescribed for the correction of *Rasa Dhātu* and the patient found that the symptoms related to the *āma doṣa* disappeared after *Dīpana, Pācana* and *Pitta śamaka Cikitsā* and the patient's appetite improved, body became lighter and other problems also disappeared and the hormone levels improved in the blood test. Keeping this in mind, the patient was continued with the treatment. In the meantime, he also got a cold for which symptomatic treatment was done and there was improvement. For a few days, the patient did not complain of anything and the hormone levels became normal. The patient was kept under observation for 45 days but the patient did not show any complaint. This shows that Ayurveda treatment can be an effective treatment for all clinical cases. This study was done on a newly diagnosed case and was found to be effective. To validate the findings, many such studies should be done on older cases and on a larger sample.

Declaration of patient consent

The data obtained from the patient was filled in with consent from the patient consent form. In the form, the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands and agreed that name and

Other confidential details will not be published, and due efforts will be made to conceal identity.

References:

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⁴ *Sushruta Samhita, Sutra Sthana, 46/462*
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Bhavaprakasha, Purva Khanda, Chapter 7