A Critical Review of Subclinical Hypothyroidism in Ayurveda

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ABSTRACT

Subclinical Hypothyroidism is a clinical syndrome which result from the deficiency of Thyroid hormones. Usually, it runs a chronic course with slow and insidious onset. Sometimes it is only accidentally diagnosed. Thyroid gland abnormality where, on one hand influences body metabolism up to a great extent, on the other hand, it is found more in females with ratio of male to female being 1:6, if left untreated it can lead to severe complication. In Ayurveda there is no direct comparison regarding symptoms of Subclinical Hypothyroidism but on the basis of clinical presentation it can be correlated with different entities as syndrome, so it is difficult to give a single Ayurvedic term for it, as there are many systems which are involved in the pathogenesis of Subclinical Hypothyroidism. Hence the symptoms of Pre-clinical and post clinical findings are compared with Rasapradoshaja Vikaras.

Key words: Subclinical Hypothyroidism, Rasa dhatu, Agni, Agnimandhya.

INTRODUCTION

Subclinical Hypothyroidism is one of the conditions where a biochemical diagnosis in patients with or without normal T3 and T4 and raised TSH levels up to 10 IU/dl with specific cardinal symptoms.[¹][²][³]

Curse of modern life style makes man suffer with various kinds of diseases that are often caused by physical and mental disturbances. The great numbers of such disturbances are contributed in hampering of endocrinal functions of the body. [⁴]

Agni is the important source for the proper digestion, assimilation and absorption of the food consumed by its nature it is very subtle. Any disturbance in its function due to any cause leads to the formation of Aama which in turn disturbs the metabolism of the whole body. Along with Jataragni other forms of Agni i.e. Dhatwagni and Bhootagni if disturbed also produces Aama in their respective abode.

Since many studies were carried out on Hypothyroidism by comparing Medhovruddi, Galaganda and Kaphaja Shota.

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Signs and Symptoms

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<th>Signs</th>
<th>Symptoms</th>
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<td>Cool peripheral extremities</td>
<td>Loss of appetite</td>
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<td>Puffy face, hands &amp;feet</td>
<td>General Weakness</td>
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(myxedema)  Bradycardia  Sudden Weight gain
Peripheral edema  Hair fall
Muscle aches / stiffness  Cold intolerance
Carpal tunnel syndrome  Forgetfulness
Pallor  Puffiness of the face
Forgetfulness  Menstrual disturbances

Ayurvedic Perspective

In Ayurveda there is no clear cut comparison for Subclinical Hypothyroidism, but on the basis of its clinical presentation, it can be correlated with different entities which one explained either as symptoms or diseases, so it is difficult to give a single Ayurvedic term for it. The mixed signs and symptoms of all these systems leads to a complex clinical picture of Subclinical Hypothyroidism. The various entities which correlate with the Subclinical Hypothyroidism in this contest is Rasapradosajavikara.

Rasapradosaja Vikaras

1. Bhojana Asrada (aversion to food)
2. Aruchi (anorexia)
3. Asya Vairasya (tastelessness)
4. Rasajnata (loss of taste perception)
5. Hrullasa (nausea)
6. Gaurava (heaviness of the bodyache)
7. Tanda (drowsiness)
8. Angasada (body ache)
9. Pandu (anaemia)
10. Srotronodha (blockage of micro-nutrient channel)
11. Klaibya (infertility)
12. Aghinasha (loss of digestive power)

General Symptoms

Subclinical Hypothyroidism presents signs and symptoms in many systems. For the critical study of the signs and symptoms in the light of Ayurvedic principals, and relationship of Dosha and Dushya in each sign and symptoms of Subclinical Hypothyroidism has to be studied.

Loss of appetite

It is due to Mandagni by influence of Kapha Dosha and Rasa Dushti.

General weakness

Capability or strength for doing work / exercise depends upon the normal state of Dehadhatu. Dhatuvaishmya leads to Daurbalya and Klama. Balakshaya is included in a Nanatmaja Vyadhi of Kapha Dosha.

Sudden weight gain

Weight gain occur because of Guru Guna of Kapha Dosha and Pruthvi and Jala Mahabhuta involved in Kapha Dosha. It can also be considered as Subclinical Hypothyroidism i.e. hypo functioning of Dhatvagni.

Pallor

According to Ayurveda, Pandutva is due to Rasadustijanya as well as Kapha Dosajanya.

Cold intolerance

Propagation of Rasadhatu and Kapha Dosha with its Sheetaguna leads to cold intolerance.

Puffiness of the face

Vitiated Kapha obstructs Rasavaha Srotas. As Kapha is composed by Apa and Pruthvi Mahabhutas and dominated by properties of heaviness and steadiness, Thickened features and puffy features appear. In other words it is also correlated as Kaphaja Shotha Lakshanas viz., Gaurava (heaviness), Anavasthitatva (irregularity in onset and relief of inflammation), Utsedha (swelling), Ushma (local rise of temperature), Sira Tanutva (dilatation of veins), Lamaharsha (horripilation), Angavivarnata (discolouration of the affected site) are the generalized signs and symptoms of Shotha.

According to our Acharyas, Vata and Kapha with Pitta Anubandha along with Rkta, Mamsa, Meda are responsible for manifestation of Shotha.

Hair loss

Dhatvaginmadhya (hypofunctioning of Dhatu) leads to augmentation of Dhatu which cannot nourish...
Uttaradhatu i.e. Asthi which results in coarse and hair loss.[8]

**Forgetfulness**

It is said that, natural state of Kapha is strength (Bala) for the body. But in Subclinical Hypothyroidism, Kapha is in vitiated state and Manobala is diminished. Abated Manobala may cause forgetfulness.

**Menstrual disturbances**

Rasavrudhi occurs in Hypothyroidism as augmented Rasa is in Asthayi Avastha (unstable state). It may be unable to nourish Upadhatu Artava and Uttara Dhatu Rakta, As a result of this Artava Pravrutti (menstruation) is disturbed.

**Generalised pain**

Subclinical Hypothyroidism can be considered as Rasa Dhatvagni Mandya Janya Vikara (hypofunctioning of Rasa Dhatwagni). Aggravation of Vata by Vaisamaya of Dhatus creates generalized aches and pain. Angamarda is mentioned as a Rasaja Vikara.

**Ayurvedic view**

Dushthi of Rasadhatu plays an important role in pathogenesis. Dhatvagnimandaya (hypofunctioning of Dhatu) is a major feature of the disease. Etiological factors aggravate Kaphadosha resulting in Jatharagnimandya (hypofunctioning of Jatharagni) and Dhatvagnimandya (hypofunctioning of Dhatu). In Subclinical Hypothyroidism, hormonal disturbances make many metabolic rate which leads to this pathogenesis. Many signs and symptoms are related with decreased metabolism. Vagbhata has mentioned this pathogenesis clearly. According to him, the part of the Jathragni, its exacerbation and diminution causes respective Dhatuvrddhi and Dhatuksaya.

**Dosha**

Clinical picture shows the dominance of Kaphadosha. Majority of the Nanatmaja Roga of Kaphadosha can be included as a signs and symptoms of Subclinical Hypothyroidism. As Charaka opines that, Sneha, Shaitya, Shukla, Gourava, Madhurya, Shthairya, Pichchila etc. are the effects produced in the body by the action of Kapha; the condition accompanied with any of the above symptoms should be diagnosed as a Kapha disorder.[9]

**Dushya**

Dusthi of Rasadhatu plays a major role in pathogenesis. Many of Rasajavikaras as mentioned by Charaka are similar to the clinical features of Subclinical Hypothyroidism, as mentioned above. Rasadhatvagnimandya (hypofunctioning of Rasa Dhatu) leads to Rasavruddhi and over production of Mala of Rasadhatu i.e. Mala Kapha-Vruddhi.

**Samprapti Ghatakas**

For the study of manifestation of Subclinical Hypothyroidism, in the light of Ayurvedic concepts of Dosha, Dhatu, Upadhatu and Srotas, involvement the following factory play their role in Samprapti of Subclinical Hypothyroidism.

- **Dosha** - a) Kapha – Avalambaka Kapha, Kledaka Kapha, b) Vata – Samana Vata, Vyana Vata
- **Dusya** – Rasadhatu
- **Agni** – Jatharagni, Rasadhatvagni, Bhutagni (mainly Pritvi and Jala)
- **Srotas** – Rasavahasrotas, Manovahasrotas.
- **Srotodusti** – Sanga
- **Adhisthana** – Sarvanga specially in Gala Pradeshha
- **Udbhavastha** – Amashaya
- **Sanchara Sthana** – Rasayani
- **Ama** – Jatharagnimandya janya Ama, Dhatvagni Mandya janya Ama.
- **Vyaktasthana** – Sarvasharira

**Sadhyasadhyata**

The prognosis of the disease is Sadhya and Kruchra Sadhya, the cause behind the disease should be detected first, then the regime of the Ausadha (medicine), Ahara (diet) and Vihara (activities) should be decided. Since the main causative factor is Agnimandya and if the management is quite effective
in dealing with the proper management of the Agni, then it is prognosed as Sadhyya.

According to modern science, the prognosis is good in case of Adult Subclinical Hypothyroidism, which return to normal health after treatment. In cretinism, the condition should be diagnosed before neurological damage and treated as early as possible, otherwise neurological abnormalities may be not reversible with therapy.

Management

The line of treatment for Rasadhatu Janita Vikara told as Langhana[10] i.e. Dashavidha Langanas are explained according to Roga-Rogi Bala , Basically the idea behind the treatment is Kapha – dominatedvatadosa Chikitsa.

Lakshanika Chikitsa (symptomatic treatment)

- Anorexia - Agni Uttejaka, Amapachaka (Arochaka Chikitsa )
- Weight gain - Sthula Chikitsa
- Anemia and Menstrual disturbances - could be corrected by Pandu Chikistsa (Punarnava Manduram is a liver stimulant, diuretic and iron supplement).
- Cold intolerance - Svedana (Sagni and Niragni)
- Hair loss - Corrected by Siroabhyanga and Nasya.
- Weakness - Rasayana as Immunomodulator.
- Generalised pain - Snehana and Swedana.
- Puffiness of the face and Myxedema - (Kaphaja Sotha and Pandu Chikitsa) Diureties, Swedana

CONCLUSION

The Thyroid gland produces two related hormones Throxin [T4] and Triiodothyronine [T3]. These hormones play a critical role in cell differentiation during development and help maintain thermogenic and metabolic homeostasis in the body. Deficiency of these hormones is known as Subclinical Hypothyroidism. It occurs due to the hypo functioning of Thyroid gland which results in decrease in body’s basal metabolic rate (BMR). So keeping the metabolism as a base Hypothyroidism can be understood in better way in terms of Dhatwagnimandya in Ayurveda. Hence medicines which are Jataragni Vardhaka, Rasadhatwagni Vardhaka are helpful to treat the condition. Although, after mere knowledge of disorders pertaining to Thyroid gland from the view of modern system of Medicines, one cannot directly correlate the disease in Ayurveda as a whole. Subclinical Hypothyroidism is not a single disease entity, there are many systems involved in the pathogenesis of Subclinical Hypothyroidism, hence we can consider as Syndrome i.e. group of symptoms.

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