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# "Hypothyroidism" In an Ayurvedic Perspective Review

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**Abstract**

*Thyroid gland is very important endocrine gland in our body after pituitary gland. Thyroid gland secretes thyroid hormone which regulates basic metabolic rate in our body. Deficiency of this hormones or resistance of body tissue to this hormones with respect to metabolic demand results in hyperthyroidism. Now in this century hypothyroidism possessing major challenge both in developing as well as developed country. In modern science there is no permanent solution for hypothyroidism and had many adverse effect. So there is a urgent need of safe and effective Ayurvedic management for which need proper understanding of pathogenesis of hypothyroidism as per the principle of Ayurveda .This review is made with an effort to understand the disease in Ayurvedicperspective . On reviewing the clinical presentation of hypothyroidism from various sources it is found that in hypothyroidism there is abnormality of Jatharagni and Dhatwagni along with abnormality of Kapha and Vatadosha as well as Rasavaha, Raktavaha, Medhovaha and ManovahStrotas. This factors should be considered during Ayurvedic management of Hypothyroidism.*

**Key Words** – Hypothyroidism, Dosha, Dushya, Agni, and Rasavaha and MedhovahaStrotas.

## Introduction

The process of metabolism in our body is carried out through thyroid hormone. Lack or resistance of body tissue to this hormone with respect to metabolic demand result in hypothyroidism .Now a days hypothyroidism is most common disorder in women and elders. The prevalence of Hypothyroidism in urban India 12.95%.Hypothyroidism result from structural and functional defect of thyroid gland along with inadequate production of thyroid hormone.

Most common cause of Hypothyroidism is auto immune condition. Every one out of five patients is manifestation of autoimmune disorder. Hypothyroidism causes Dyslipidemia, which is important risk factor for many serious illness.The treatment of hypothyroidism is quite difficult due to many adverse effect and lifelong therapy.so it is need of this era to look for safe and effective management for hypothyroidism is Ayurveda, But before that we have to understood the hypothyroidism in terms of Ayurveda principle.

This review is carried out to understood hypothyroidism according to principle of Ayurveda.Presentation of hypothyroidism is reviewed critically by searching etiology,pathogenesis and symptoms from various research databases.Pathogenesis of Hypothyroidism are studied in terms of imbalance of Dosha,Dushya,Srotas etc. and an effort is made to obtain standard possible samprapti of Hypothyroidism.

## Material and Methods

This study is carried by various literature search and critical review of obtained facts. Pathogenesis of hypothyroidism is obtained by searching various medical research databases like Embase,Pubmed,Ayucare and various national and international research databases.The term entered

for search are thyroid gland, its anatomy and physiology, Thyroidism, Hypothyroidism pathogenesis and clinical presentation of hypothyroidism etc. Manual search made going through referral list of reviewed article to identify the relevant additional study.To understand pathogenesis various Ayuvedatext is used.

**Observation and Discussion: Physiological effect of Thyroid Hormone**

Thyroid gland secrete two major hormone T3 and T4 which effect on our body system for life.Thyroid hormone promotes growth as amino acid uptake by tissues and enzymatic systeminvolved in protein synthesis thus promoting bone growth. Carbohydratemetabolism is regulated by thyroid hormone as stimulate glucose uptake,gluconeogenesis, glycogenolysis.These action can be compared to function of RasavahaSrotas as it supplies nutrition energy to all body tissue.The thyroid help in fat metabolism by mobilizing lipid from adipose tissue and accelerate oxidation lipid energy.Lipid metabolism can be compared with function of medovahasrotas.Thyroid hormone increase basal metabolic rate (BMR) in all tissues except brain,spleen and gonads.This increase BMR result in increased of energy causing weight loss.This action can compared with function of Agni in our body. Cardiovascular action of thyroid increase cardiac output,palpation,tachycardia.The srotas affected by thyroid hormone are mainly Rasavah,Raktavah, Mansavah,Medovah,Asthivah,Sukravah and Manovahsrotas .

**Etiology of Hypothyroidism**

Hypothyroidism is classified into

1.**Primary (thyroid failure) :** Due to inadequate secretion of T3 and T4 hormone.It accounts for 95% of hypothyroidism most common cause primary hypothyroidism is

1.Iodine deficiency
2.Autoimmune thyroid disease
3.Congenital
4.Drugs
5.Itrogenic

**2.Secondary (due to pituitary TSH deficit)**

**3.Tertiary (due to deficiency of TRH)**

So far AyurvedicNidana is concerned the etiological factors related Kapha-VataPrakopa,Agnimandya,Rasapradoshakanidan will be responsible for gensis of hypothyroidism.

**Clinical Presentation of Hypothyroidism**

Hypothyroidism results from failure of thyroid gland to produce enough thyroid hormones to meet the metabolism of the body or from resistance of peripheral tissues to thyroid hormone . Hypothyroidism results in slowing of metabolic process and energy and expenditure . Hypothyroidism usually results in the multitude of clinical signs and symptoms . The degree of thyroid dysfunction and the time course of development of hypothyroidism determines the severity of the manifestations. The symptoms of hypothyroid are very non specific . However common presentation of hypothyroidism along with its Ayurvedic perspective are Tabulated below.

**Symptoms and Signs of Hypothyroidism**

| Symptoms / signs | Dosha involved | Srotas Involved |
|---|---|---|
| Fatigue , Loss of energy | Vata | Rasavaha |
| Muscle Pain , joint pain , weakness in the extremities | Vata | Asthivaha,Mansavaha |
| Dry skin | Vata | Rasavaha |
| Hair loss , coarse, Brittle, straw-like hair, loos of scalp hair , axillary hair , pubic hair , | Vata | Asthivaha |
| Dull facial Expression, depression, emotional liability ,Mental impairment , forgetfulness , impaired memory ,inability to concentrate | Vata | Mohavaha |
| Fullness in the throat , Hoarness | Kapha | Pranavaha |
| Decreased Perspiration | Vata | Medovaha |
| Paresthesias , nerve entrapment syndromes | Vata | Rasa,Meda, Majja |
| Menstrual Disturbance, Impaired fertility | Vata | Artavavaha , Sukravaha |
| Constipation | Vata | Purishavaha |
| Blurred vision, Decreased hearing | Vata | Indriya |
| Jaundice, Pallor | Pitta | Raktavaha, Rasavaha |
| Lethargy, Sleepiness | Kapha | Rasavaha |
| Weight gain | Kapha | Rasavaha |
| Decreased appetite, | Kapha | Annavaha, Rasavaha |
| Hyporeflexia , ataxia | Vata | Rasavaha,Raktavaha,manovaha |
| Coarse facial features, Periorbital Puffiness, Macroglossia | Kapha | Rasavaha |
| Goiter (simple or nodular) | Kapha | Rasavaha, Mamsavaha, Medhovaha |
| Bradycardia, Decreased systolic blood pressure and increased diastolic blood pressure | Vata | Rasavaha, Raktavaha |
| Pericardial effusion, abdominal distention , ascites (uncommon ) ,Nonpitting edema (myxedema), Pitting edema of lower extremities | Kapha | Rasavaha Raktavaha. |

From the above table it is clear that in hypothyroidism there is abnormality of Jatharagni and Dhatwagni along with the abnormality of the Kapha and VataDosha as well as Rasavaha, Raktavaha, Medhovaha, Sukravaha and ManovahaSrotas. Cardiac function and cardiovascular hemodynamics is readily regulated by the thyroid hormone T3. Hypothyroidism causes decreased cardiac contractility and cardiac output as well increased peripheral resistance. These findings may indicate morbidity of RasavahaSrotas in hypothyroidism. Hypothyroidism patients shows increased carotid artery intra-ma-media thickness due to Atherosclerosis and elevated total cholesterol, elevated high density lipoprotein which improves on hormones replacements therapy. In case of over hypothyroidism the serum triglycerides remain high and the high density lipoprotein level remain low this facts support the abnormality of Medovahasrotas in the pathogenesis of hypothyroidism study shows that

hypothyroidism shows mild decrease in seminal volume.Mild decrease in progressive forward motility of sperm and mild decrease in cumulative percentage of mobile forms of sperm .Hypothyroid phase of hypothyroidism displaces hypergonadotropism low serum testosterone and subnormal testosterone response to human chronic gonadotropism and these abnormalities revert back on thyroxin substitution. These fact support mental state examination score than euthyroidcounterpart . Hypothyroidism is known to induce various neurological and mental dysfunctionsWhich supports ManovahaSrotas abnormality in this disorder.

**Conclusion**

Although the disease Hypothyroidism is not described in classical Ayurvedictexts . Based on its clinical presentation its samprati ( pathogenesis ) can be understood as follows ; **Nidana** – Santarpanottha, **Dosha** – Kapha , vata , **Dushya**-Rasa, Meda, Mamsa, Asthi , Majja , Sukra , **Samuththana**- AmasayaAdhisthana – sarvaSareera, Srotodushti-sanga, Rogamarga: Abhyantara(kostha), **Srotodusti**: Sanga, **Agni Mandya**: AmaJatharagniMandyaJanita, Ama Rasa-RaktaDhatvadniJaita. During the treatment of hypothyroidism this pathogenetic factors has to be targeted with special attention to strength of Body, Mind, and Dosha.

**References**

1. CharakaSamhita of Agnivesha elaborated by Charaka and Drudhbala with the Ayurveda Dipika commentary by Chakrapanidutta, Sutrasthana, Chapter-12, Verse No-11, Page-80 Edited by: VaidyaYadavjiTrikamjiAcharya Published by ChoukhambaSurbhartiPrakashan, Varanasi Edition Reprint 2005.
2. CharakaSamhita of Agnivesha elaborated by Charaka and Drudhbala with the Ayurveda Dipika commentary by Chakrapanidutta, Sutrasthana, Chapter- 20, Verse No- 11, 12, 17, 18, Page- 113-115 Edited by: VaidyaYadavjiTrikamjiAcharya Published by ChoukhambaSurbhartiPrakashan, Varanasi Edition Reprint 2005.
3. CharakaSamhita of Agnivesha elaborated by Charaka and Drudhbala with the Ayurveda Dipika commentary by Chakrapanidutta, Sutrasthana, Chapter- 28, Verse No- 9-22 Page- 179 Edited by: VaidyaYadavjiTrikamjiAcharya Published by ChoukhambaSurbhartiPrakashan, Varanasi Edition Reprint 2005.
4. Unnikrishnan AG, Menon UV. Thyroid disorder in India: An epidemiological perspective. Indian JEndocrinolMetab. Jul 2011.
5. .Unnikrishnan AG,Kalra S, Bantwal G, John M. Prevalence of Hypothyroidism in adults: An epidemiological perspective. Indian JEndocrinolMetab. Jul 2013.
6. Duyff RF, Bosch JV den, Laman DM, Loon B-JP. Neuromuscular findings in Thyroid disfunction with respective clinical study. J NeurolNeurosurg Psychiatry . 2000 Jun 1.
7. Orlander PR, Griffing GT, Varghese JM. Hypothyroidism Clinical Presentation. Medscape, Drugs, Disease. Available from: http://emedicine.medscape.com/article/122393-clinical.
8. S D,I K. Thyroid Hormone and the cardiovascular system. Minerva Endocrinol. 2004 Sept.
9. CharakaSamhita of Agnivesha elaborated by Charaka and Drudhbala with the Ayurveda Dipika commentary by Chakrapanidutta, Sutrasthana, Chapter- 24, Verse No- 25-27 Page- 125 Edited by: VaidyaYadavjiTrikamjiAcharya Published by ChoukhambaSurbhartiPrakashan, Varanasi Edition Reprint 2005.
10. Abdel-GayoumAA.Dyslipidemia and serum mineral profile in patient with Thyroid Disorder.Saudi Med J. 2014 Dec.