

Comprehensive Review of Dhatugata Vyadhi WSR to Management of Thyroid Dysfunction in Females

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Abstract—Thyroid dysfunction is among the most prevalent endocrine disorders affecting females, with hypothyroidism, hyperthyroidism, and autoimmune thyroid diseases showing a significantly higher incidence in women compared to men. Hormonal fluctuations, stress, nutritional factors, and immune dysregulation contribute to this gender disparity. Conventional management relies primarily on hormone replacement or antithyroid medications, which often require lifelong use and may not address the underlying metabolic and systemic imbalances. Ayurveda, the traditional Indian system of medicine, offers a holistic understanding of thyroid dysfunction through the principles of Dosha, Agni, Dhatu, Srotas, and Manas, although thyroid disorders are not described as a single disease entity in classical texts. Clinical features of thyroid dysfunction can be correlated with conditions such as Galaganda, Gandamala, Agnimandya, Medodusti, and Kapha-Vata or Pitta imbalance. This theoretical review aims to elucidate the Ayurvedic understanding of thyroid dysfunction in females, including etiological factors (Nidana), pathogenesis (Samprapti), clinical manifestations, and principles of management (Chikitsa Siddhanta). Classical Ayurvedic texts such as Charaka Samhita, Sushruta Samhita, and Ashtanga Hridaya were critically reviewed along with relevant contemporary scientific literature. The Ayurvedic management strategy emphasizes correction of Agni, elimination of Ama, balancing of Doshas, purification of affected Srotas, and restoration of hormonal harmony through individualized Ahara, Vihara, Aushadha, and Panchakarma therapies. The integrative and preventive approach of Ayurveda provides a promising, sustainable, and patient-centered framework for managing thyroid dysfunction in females and improving overall quality of life.

Keywords— Thyroid Dysfunction; Hypothyroidism; Hyperthyroidism; Galaganda; Ayurveda; Female Endocrine Disorders; Agni; Panchakarma.

I. INTRODUCTION

Thyroid disorders constitute a major public health concern worldwide, with a disproportionately higher prevalence among females. Epidemiological data indicate that women are five to eight times more likely to develop thyroid dysfunction than men, particularly hypothyroidism and autoimmune thyroiditis. Thyroid hormones play a pivotal role in regulating metabolism, thermogenesis, growth, neurological function, and reproductive health. Even subtle disturbances in thyroid hormone levels can result in profound systemic effects, especially in women, influencing menstrual cycles, fertility, pregnancy outcomes, mood, and cognitive function.

Modern medicine classifies thyroid disorders primarily into hypothyroidism, hyperthyroidism, and structural abnormalities such as goiter and nodules. Although pharmacological interventions such as levothyroxine and antithyroid drugs are effective in regulating hormone levels, they often do not address the multifactorial etiologies, lifestyle influences, or psychosomatic dimensions of the disease. Additionally, long-term dependence on medication, variable symptomatic relief, and adverse effects have prompted increasing interest in complementary and traditional medical systems.

Ayurveda conceptualizes health as a state of equilibrium between Dosha, Dhatu, Mala, and Agni, with disease resulting from imbalance among these factors. Thyroid dysfunction, though not explicitly named in classical texts, can be

understood through Ayurvedic principles involving Agnimandya, Kapha predominance, Medodusti, and Srotorodha. Classical descriptions of Galaganda and Gandamala provide valuable insights into neck swellings and metabolic disturbances resembling thyroid disorders. The female predominance of thyroid dysfunction can further be explained through Ayurvedic concepts related to Artava, Raja, hormonal cyclicality, and psychological stress.

This review aims to provide a comprehensive theoretical analysis of thyroid dysfunction in females from an Ayurvedic perspective and to elaborate on holistic management strategies that emphasize correction of root causes rather than symptomatic suppression.

Anatomy and Physiology of the Thyroid: Ayurveda & contemporary interpretation:

Contemporary Perspective

The thyroid gland is a bilobed endocrine organ located anterior to the trachea, composed of follicular cells that secrete thyroxine (T4) and triiodothyronine (T3). These hormones regulate basal metabolic rate, oxygen consumption, lipid and carbohydrate metabolism, cardiovascular function, and neurological development. Thyroid hormone secretion is regulated by the hypothalamic-pituitary-thyroid axis through thyroid-stimulating hormone (TSH).

Ayurvedic Perspective:

Ayurveda does not describe the thyroid gland anatomically; however, its physiological functions can be correlated with:

- Agni – regulation of metabolic processes
- Udana Vayu – speech, growth, and energy
- Kapha Dosha – structure, stability, and lubrication
- Rasavaha and Medovaha Srotas – nutrition and lipid metabolism

The neck (Gala or Kantha Pradesh) is described as a vital region where disorders like Galaganda manifest, resembling thyroid enlargement and dysfunction.

Thyroid Dysfunction in Females: Ayurvedic Explanation

Females are more susceptible to thyroid disorders due to:

- Hormonal fluctuations during menarche, pregnancy, postpartum period, and menopause.
- Greater prevalence of autoimmune tendencies.
- Psychological stress and emotional sensitivity.
- Sedentary lifestyle and dietary irregularities.

Ayurveda recognizes the intimate relationship between Agni, Artava, and Manas. Disturbances in digestive and tissue metabolism often manifest as endocrine disorders, particularly in women.

Nidana (Etiological Factors):

Ahara Nidana:

- Excess intake of Guru, Snigdha, Madhura foods.
- Irregular meal timing (Vishamashana).
- Excessive consumption of cold and processed foods.

Vihara Nidana:

- Sedentary habits.
- Divaswapna (day sleep).
- Ratri Jagarana (night awakening).

Manasika Nidana:

- Chronic stress
- Anxiety, grief, suppression of emotions

Samprapti (Pathogenesis):

Improper diet and lifestyle weaken Jatharagni, leading to formation of Ama. This results in vitiation of Kapha and Vata Dosha and obstruction of Rasavaha and Medovaha Srotas. Over time, tissue metabolism becomes impaired, leading to clinical manifestations resembling thyroid dysfunction.

Clinical Manifestations (Lakshana):

Hypothyroidism (Kapha-Vata Predominance):

- Weight gain.
- Cold intolerance.
- Lethargy.
- Constipation.
- Menstrual irregularities.

Hyperthyroidism (Pitta Predominance)

- Weight loss
- Heat intolerance
- Palpitations
- Irritability
- Excessive sweating

Chikitsa Siddhanta (Principles of Management):

Ahara (Dietary Management):

- Warm, light, easily digestible food.
- Use of Deepana spices like ginger and black pepper.
- Avoidance of cold, heavy, and junk foods.

Vihara (Lifestyle Modification):

- Regular physical activity.
- Yoga and Pranayama.
- Stress management through meditation.

Oushadha (Medicinal Therapy):

- Kanchanara Guggulu
- Varunadi Kashaya
- Triphala
- Punarnava Mandura

Role of Panchakarma:

- Vamana for Kapha dominance
- Virechana for Pitta imbalance
- Nasya for neuro-endocrine regulation

II. DISCUSSION

Thyroid dysfunction in females represents a complex interplay of metabolic, hormonal, immunological, and psychological factors. Modern endocrinology primarily explains these disorders in terms of hypothalamic–pituitary–thyroid axis dysregulation, autoimmune mechanisms, iodine imbalance, and genetic susceptibility. However, this reductionist approach often overlooks the role of digestive metabolism, lifestyle factors, mental health, and individual constitution, which are central to the Ayurvedic understanding of disease.

From an Ayurvedic perspective, thyroid dysfunction can be conceptualized as a manifestation of Agnimandya at both Jatharagni and Dhatvagni levels. Impaired digestive and tissue metabolism leads to the formation of Ama, which in turn causes obstruction (Srotorodha) of Rasavaha and Medovaha Srotas. This pathological process closely resembles the metabolic slowdown and lipid dysregulation observed in hypothyroidism. The predominance of Kapha Dosha explains clinical features such as weight gain, lethargy, cold intolerance, and sluggish metabolism, while associated Vata involvement contributes to fatigue, dryness, and menstrual irregularities.

In hyperthyroidism, Pitta Dosha dominance with associated Vata aggravation leads to features such as heat intolerance, excessive sweating, palpitations, anxiety, and weight loss. Ayurveda recognizes that Agni imbalance may present as either hypo-function (Manda Agni) or hyper-function (Tikshna Agni), both of which can result in systemic pathology if not properly regulated.

The female predominance of thyroid disorders can be well explained through Ayurvedic principles. Females are physiologically governed by Artava and undergo repeated hormonal and metabolic transitions during menarche, pregnancy, postpartum period, and menopause. These phases are Agni-sensitive states, making women more vulnerable to endocrine and metabolic disorders when dietary, lifestyle, or psychological balance is disturbed. Additionally, Ayurveda acknowledges the profound influence of Manas (mind) on Sharira (body). Chronic stress, emotional suppression, anxiety, and grief—common in modern female lifestyles—act as Manasika Nidana, precipitating or aggravating thyroid dysfunction.

Ayurvedic management stands distinct in its root-cause-oriented approach. Instead of focusing solely on biochemical correction of hormone levels, Ayurveda emphasizes restoration of metabolic integrity (Agni Samya), removal of metabolic toxins (Ama Pachana), and normalization of Dosha balance. The use of Shodhana therapies such as Vamana, Virechana, and Nasya plays a crucial role in eliminating deep-seated Dosha accumulation, particularly Kapha and Pitta, which are central to thyroid pathology. Nasya is especially significant due to its influence on the Urdhva Jatrugata region and its potential regulatory effect on neuro-endocrine functions.

Herbo-mineral formulations like Kanchanara Guggulu and Punarnava Mandura are widely indicated in classical texts for conditions involving Granthi, Shotha, and Medodusti. These formulations possess Lekhana, Kapha-Medohara, and Agnideepana properties, making them suitable for managing thyroid-related metabolic disturbances. Alongside pharmacological interventions, dietary regulation (Ahara) and lifestyle modification (Vihara) form the cornerstone of sustainable management. Yoga, pranayama, and meditation further contribute by reducing stress, improving autonomic balance, and enhancing endocrine harmony.

Thus, Ayurveda offers a comprehensive biopsychosocial model for understanding and managing thyroid dysfunction in females, addressing not only the physical manifestations but also the underlying metabolic and psychological contributors.

III. CONCLUSION

Thyroid dysfunction in females is a multifactorial disorder with significant impact on metabolic health, reproductive function, psychological well-being, and overall quality of life. While modern medical management effectively regulates hormone levels, it often does not address the underlying metabolic imbalance, lifestyle factors, and psychosomatic influences that contribute to disease progression and recurrence.

Ayurveda provides a holistic and individualized framework for understanding thyroid dysfunction through the

concepts of Agni, Dosha, Dhatu, Srotas, and Manas. The clinical features of hypothyroidism and hyperthyroidism can be effectively correlated with Kapha-Vata and Pitta predominant pathological states respectively. Female susceptibility to thyroid disorders is well explained by Ayurvedic principles related to Artava, hormonal cyclicality, and stress-induced Agni Vaishmya.

The Ayurvedic management strategy emphasizes correction of digestive and tissue metabolism, elimination of Ama, purification of obstructed channels, and restoration of hormonal and psychological balance through Ahara, Vihara, Aushadha, and Panchakarma. Such an approach not only aids in symptom relief but also supports long-term disease control and prevention of complications.

In the present era of increasing lifestyle disorders, integrating Ayurvedic principles with modern diagnostic and monitoring tools may offer a safe, cost-effective, and sustainable approach for managing thyroid dysfunction in females. Further clinical studies and evidence-based research are warranted to validate and standardize Ayurvedic treatment protocols for broader acceptance in integrative healthcare systems.

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