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EVALUATING ENDOCRINE HOMEOSTASIS VIA AYURVEDIC PRISM OF DOSHA, DHATU, AND MALA: A SPECIAL REFERENCE TO THYROID FUNCTION DISORDER

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ABSTRACT

Ayurveda views thyroid functioning through the lens of Agni (metabolic fire) and Tridosha**.** While classical texts do not explicitly name, they categorize such metabolic disturbances as Anukta Vyadhi (unnamed diseases). This study systematically analyses the status of Dosha Dhatu and Mala in thyroid disorders using comparative charts to establish a diagnostic framework. A review of Ayurvedic classics and contemporary medical data was conducted to correlate hormonal changes with Dosha-Dhatu-Mala imbalances. Hypothyroidism: Characterized by Kapha-Vata aggravation and Pitta Kshaya (decreased metabolic fire), leading to weight gain and lethargy. Hyperthyroidism: Involves Vata-Pitta vitiation and Kapha Kshaya, resulting in hyper-metabolism and tissue depletion *(*Dhatu Kshaya*)*. The integrative use of Tridosha charts allows for a more personalized, holistic management of thyroid health by restoring metabolic equilibrium through diet, lifestyle, and targeted therapies.

KEYWORDS: Thyroid, Dosha-Dhatu and Mala status, Hypothyroidism, Hyperthyroidism.

INTRODUCTION

Dosha, Dhatu, and Mala are the foundation of the body; it is from these that the body is constructed. When Dosha, Dhatu, and Mala are in a state of equilibrium, the body remains disease-free and healthy. If their equilibrium is disturbed, disease arises in the body.[1]

According to Madhukosha reference *"Prakrityarambhatve sati dushtakartritvam doshatvam"* (Madhukosha). The importance of Doshas in the origin of disease is significant. In the explanation of Doshas, it is stated that the quality of "doing harm" (malfunction) is inherent to the Doshas. Only Doshas have the capacity to vitiate Dhatus and Malas, thereby affecting the entire body. For this reason, one view of the ancient authors is: *"Rogastu dosha vaishamya"* means the disease is the imbalance of Doshas.

Vitiation of Dosha and Dushya (Tissues/Waste) leads to Disease, in the pathogenesis of a disease, the interaction and vitiation of Dosha and Dushya is a vital and necessary event. If we look at Thyroid function disorder, it is also a form of disease where the relationship between Dosha vitiation and Dushyas is visible.

When considering Doshas, it is first necessary to consider the Pitta Dosha. In many researches Enlighted the importance of Agni (metabolic fire) in Thyroid function disorder. According to Acharya Charaka, within the body, Agni resides under the domain of Pitta. While staying within Pitta, this Agni performs both auspicious (healthy) and inauspicious (unhealthy) functions.[2] This Pitta, in its natural or altered states, performs beneficial or harmful tasks. Acharya Chakrapani has divided these functions into the five types of Pitta.

Table 1: Normal Functions of Subtype of Pitta Dosha and manifestation in Hypothyroid and Hyperthyroid conditions. (Pitta Dosha & Thyroid Dysfunction Chart)

Pitta subtype	Normal Functions	Hypothyroid	Hyperthyroid
Pachaka	Digestion and metabolism	Decreased appetite, Constipation	Increased appetite, Increased defecation
Ranjaka	Formation/Colouring of blood	Anaemia	Polycythaemia Vera (excess red blood cells)
Sadhaka	Mental functions (Courage, fear, anger, clarity)	Depressed behaviour, Impaired memory	Nervousness, Irritability, Emotional lability
Alochaka	Visual perception	Lid Retraction affected	Exophthalmos (bulging eyes)
Bhrajaka	Skin complexion and temperature	Dry skin, Scaliness of skin	Pigmentation, Erythema (redness)

According to Acharya Chakrapani, the function of Pakti (digestion/transformation) is specifically under the control of Pachaka Pitta. Whether digestion is healthy or impaired is the responsibility of Pachaka Pitta. The symptoms seen in thyroid dysfunction due to its abnormal (unnatural) functioning are shown in the table above.

Similarly, the normal functions of Ranjaka, Sadhaka, Alochaka, and Bhrajaka Pitta, and the symptoms found in this disease when they are imbalanced, have been clarified. If we consider Pachaka Pitta and the process of digestion, the cooperation of Samana Vayu and Kledaka Kapha along with Pachaka Pitta is also extremely important. This means the entire subject cannot be understood by considering Pitta Dosha alone. It is necessary to consider Vata and Kapha Doshas as well. The following tables show the symptoms of Hypothyroidism and Hyperthyroidism when the five subtypes of these Doshas do not function normally. Thus, all three Doshas are involved in this disease.

Table 2: Normal Functions of Subtype of Vata Dosha and manifestation in Hypothyroid and Hyperthyroid conditions. (Vata Dosha & Thyroid Dysfunction Chart)

Vata subtype	Functions	Hypothyroidism	Hyperthyroidism
Prana	Intellect, heart, senses, mind, consciousness	Depression, lack of concentration	Tremors, psychosis, nervousness, irritability
Udana	Speech, effort, enthusiasm, strength, complexion, memory	Hoarseness of voice, weakness & dizziness	Weight loss
Samana	Resides near the digestive fire (agni)	Constipation, loss of appetite, hypoglycaemia	Increase appetite, diarrhoea
Vyana	Circulates throughout the entire body	Hypotension, bradycardia, muscle sluggishness	Palpitation, arrhythmia, tachycardia
Apana	Elimination (semen, menses, urine, feces, fetus)	Menorrhagia, decreased libido, polymenorrhea	Hyper defecation, infertility, oligo menorrhoea

Table 3: Normal Functions of Subtype of Kapha Dosha and manifestation in Hypothyroid and Hyperthyroid conditions. (Kapha Dosha & Thyroid Dysfunction Chart)

Kapha subtype	Function	Hypothyroidism	Hyperthyroidism
Kledaka	Moistening and softening food	Heaviness in body, drowsiness, weight gain, loss of appetite	Weight loss
Bodhaka	Perception of taste	Anorexia, slurred speech, increased secretion of saliva	—
Tarpaka	Nourishing the head and sense organs	Heaviness of head, dementia	—
Avalambaka	Supporting the chest and heart	Bradycardia, chest heaviness	Tachycardia
Shleshaka	Lubricating the joints	Joint pain, stiffness, and swelling	—

The clinical manifestations of Hypothyroidism and Hyperthyroidism can be mapped across the subtypes of Vata, Pitta and Kapha leading to the following conclusions.

Vata Imbalance (Movement & Regulation): Thyroid disorders heavily impact the nervous and circulatory systems. In Hypothyroidism, Vata becomes sluggish (bradycardia, constipation), while in Hyperthyroidism, it becomes hyperactive (tremors, palpitations, tachycardia). Kapha Imbalance (Structure & Fluid): Hypothyroidism is primarily a state of increased Kapha, characterized by heaviness, weight gain, and "slowness" in the joints and tissues. Conversely, Hyperthyroidism often leads to a depletion of Kaphas nourishing qualities, resulting in rapid weight loss.

Systemic Multi-Doshic Nature: Because thyroid hormones influence every cell, the "vitiation" (disturbance) spreads across all five subtypes of each Dosha. A successful Ayurvedic approach must therefore move beyond treating a single symptom and instead aim to restore the equilibrium of the Dosha-Dhatu-Mala axis.

Table 4: This table explains the specific state of increase (Vruddhi) or decrease (Kshaya) of the Doshas and their clinical manifestations in Hypothyroidism.

Symptoms	Dosha Status	Vruddhi-Kshaya Lakshanas (Increase/Decrease Signs)
Fatigue	Kapha Vruddhi, Vata Kshaya	Alasya (lethargy): Lack of enthusiasm for work despite physical capacity. This occurs due to low enthusiasm. Apraharsha: Loss of joy. Vata is the source of joy and enthusiasm; its decrease causes this symptom.
Extreme Sluggishness	Kapha Vruddhi, Vata Kshaya	Sthaulyangatva:Laxity or looseness in body parts. Mandacheshta: Sluggishness in bodily activities. A decrease in body movement and overall slowing of physical functions.
Mental Sluggishness	Kapha Vruddhi, Vata Kshaya	Avasada: Depression or exhaustion of mind and body (Dalhana/Charaka). Sanjnamoha: Impaired consciousness/memory (Chakrapani). Moha: Perverted or incorrect knowledge (Dalhana). Decreased Vata leads to inability to perceive knowledge correctly.
Decreased BMR	Kapha Vruddhi, Pitta Kshaya	Agnisadana/Agnimandya: Weakened metabolic fire (Arunadatta). Mandanala: Deficiency of Pachaka Pitta. The combination of increased Kapha and decreased Pitta creates a state of low metabolism.
Weight Gain	Kapha Vruddhi, Pitta Kshaya	This symptom appears specifically due to the slowing down of the Pachan(digestive/metabolic) process.
Decreased HR / Decreased Cardiac Output	Kapha Vruddhi, Vata Kshaya	The increase in Avalambaka Kapha (which protects the heart) combined with a decrease in Vyana Vayu (which governs circulation) causes cardiac activity to slow down.

Extreme Somnolence	Kapha Vruddhi	Atinidra(Excessive sleep): Produced by the heavy qualities of Kapha and an increase in Tamas (the mental state of inertia/darkness).
Intolerance to Cold	Kapha Vruddhi	Shaitya: Sensitivity to cold touch (Arunadatta). The increase in coldness due to Kapha and the loss of the Ushna (hot) quality [from decreased Pitta] causes the symptom of feeling cold.

The Pathogenesis of Hypothyroidism

The analysis of symptoms in Hypothyroidism reveals a consistent pattern of metabolic and systemic stagnation. The clinical picture can be summarized through three primary Doshic shifts: Kapha Vriddhi (Pathological Increase): The dominant feature is an increase in Kapha, leading to heavy and slow qualities. This manifests as Alasya (lethargy), Sthaulyangatva (heaviness/weight gain), and Atinidra (excessive sleep). Pitta Kshaya (Metabolic Depletion): A decrease in the hot and transformative qualities of Pitta (specifically Pachaka and Bhrajaka) leads to Agnimandya (low BMR), cold intolerance, and dry, lustreless skin. Vata Kshaya/Vitiation (Loss of Movement): The reduction in Vatas mobile quality result in Manda-cheshta (sluggishness) and decreased cardiac output (Vyana Vayu dysfunction).

Table 5: This table provides the Ayurvedic analysis for Hyperthyroidism, which is primarily characterized by an increase in Vata and Pitta (heat and movement) and a decrease in Kapha (stability).

Symptoms	Dosha Status	Vruddhi-Kshaya Lakshanas (Signs of Increase/Decrease)
Fatigue	Vata Vruddhi, Pitta Vruddhi	Balabransha: Loss of physical strength and enthusiasm (Dalhana). Balahani: Depletion of Ojas (vitality/immunity). The increase in Vata/Pitta burns through Ojas, leading to exhaustion.
High state of excitability	Vata Vruddhi	Vata is the Utsahayoni (the source of enthusiasm/excitement). Its excess leads to hyper-excitability.
Weight loss	Vata Vruddhi, Pitta Vruddhi	Karshya/Krushatvam: Emaciation or becoming thin (Arunadatta). This reflects the "drying" effect of Vata and the "burning" effect of Pitta.
Increased BMR	Vata Vruddhi, Pitta Vruddhi	An increase in the functions of Samana Vayu and Pachaka Pitta leads to an overactive metabolic rate.
Decreased Sleep	Vata Vruddhi, Pitta Vruddhi	Nidranasha:Total loss of sleep (Arunadatta). Alpanidrata: Very little sleep (Dalhana). Vata increase destroys the oily quality of Kapha (which aids sleep). Pitta's hot and sharp qualities further disturb the restfull sleep.
Intolerance	Pitta Vruddhi	Sheetakamitvam: Desire for cold things. The increase in

to heat		the Ushna (hot) quality of Pitta makes the person crave coolness.
Muscle Weakness	Pitta Vruddhi	Gatranam Sadanam: Debility or looseness of the limbs (Sushruta Samhita). Excessive Pitta "burns" through the tissues and reduces Ojas, causing physical weakness.
Mild Diarrhea	Pitta Vruddhi, Vata Vruddhi	Increased Pachaka Pitta combined with increased Vyana Vayu speeds up intestinal motility, leading to diarrhea-like symptoms.
Increased Sweating	Pitta Vruddhi	Santapa: Excessive heat and perspiration (Dalhana). The increase in the hot quality of Pitta naturally forces more sweat production.
Fine tremor of hands, Nervousness, etc.	Vata Vruddhi	Kampa: Tremors or excessive movement (Arunadatta). The increase in Vata's Chala (mobile) quality causes involuntary movements and mental instability.
Increased heart rate / Cardiac output	Kapha Kshaya, Vata Vruddhi	Hruddrava(Palpitation): A decrease in Avalambaka Kapha (stability) and an increase in Vyana Vayu (movement) causes the heart to race.

The Pathogenesis of Hyperthyroidism

The symptoms of Hyperthyroidism reflect a state where the body's metabolic fire is burning too brightly, leading to depletion of vital tissues This can be summarized through three key Doshic shifts: Pitta Vriddhi (Pathological Heat): The hot and sharp qualities of Pitta are significantly increased. This causes Santapa (excessive sweating), Sheetakamitvam (heat intolerance), and Atyagni (a hyperactive metabolic rate) that literally burns through Dhatus (tissues), leading to weight loss. Vata Vriddhi (Pathological Movement): An increase in Vata's Chala (mobile) quality leads to Kampa (tremors), Nidranasha (insomnia), and high states of excitability. The combination of high Vata and Pitta accelerates intestinal motility, resulting in diarrhoea. Kapha & Ojas Kshaya (Depletion of Stability): The intense heat of Pitta and the drying nature of Vata dry up the nourishing, stable qualities of Kapha. This results in Balahani (loss of Ojas/vitality) and Hraddrava (palpitations), as the heart loses its protective, stable influence (Avalambaka Kapha).

The impact of thyroid dysfunction on the seven Dhatus (tissues) illustrates the shift from simple functional imbalance to structural systemic disease.

Table 6: Dhatu Kshaya and Vriddhi in Thyroid Pathogenesis.

Dhatus (Tissues)	Hypothyroidism	Hyperthyroidism
Rasa (Plasma)	Weak Agni, excessive salivation,	Dryness, exhaustion, emaciation,

	lethargy, heaviness, coldness, anorexia, excessive sleep, weight gain.	fatigue, low strength, tremors, insomnia, increased thirst, palpitations.
Rakta (Blood)	Weak Agni, anaemia, dry skin.	Laxity of veins, skin harshness, heat intolerance.
Mamsa (Muscle)	Goitre (enlargement in neck), weight gain, lethargy.	Muscle wasting, weight loss, muscle weakness.
Meda (Fat)	Fatigue, foul body odour, lymphoma (nodular growths), dyspnoea (shortness of breath) on exertion.	Splenomegaly (enlarged spleen), fatigue, weight loss.
Asthi (Bone)	Brittle nails, dry hair, osteoarthritis.	Bone pain, osteoporosis, osteomalacia, joint pain.
Majja (Marrow/Nervous)	Heaviness in the body.	Fatigue, Vata imbalance in the nervous system.
Shukra (Reproductive-M)	Infertility, painful ejaculation.	Oligospermia (low sperm count), erectile dysfunction.
Artava (Reproductive-F)	Menstrual disturbances (excessive/irregular).	Oligomenorrhea (infrequent periods).

Dhatu Kshaya and Vriddhi in Thyroid Pathogenesis

The metabolic errors (Dhatvagni Mandya or Tikshnagni) create two distinct pathological paths.

Hypothyroidism (The Path of Accumulation & Stagnation): Low metabolic fire results in "unprocessed" nutrients. This leads to pathological increase (Vriddhi) of heavy tissues like Meda (fat) and Mamsa (muscle), while the more refined tissues like Rakta (blood) and Shukra/Artava (reproductive) suffer from poor quality, leading to anaemia and infertility.

Hyperthyroidism (The Path of Depletion & Combustion): The overactive fire causes pathological depletion (Kshaya) across almost all tissue layers. The body essentially "consumes itself," leading to Mamsa-Dhatu-Kshaya (muscle wasting) and Asthi-Kshaya (bone density loss/osteoporosis). The final result is the depletion of Ojas (pure essence of all tissues), manifesting as chronic fatigue and nervous system instability.

A very important verse appears regarding Agni (metabolic fire):
If the Dhatvagni (tissue-level fire) remains in a natural state, each organ receives its nourishing portion from the digestion of the tissues. Conversely, if this "fire" is disturbed, symptoms of tissue increase or decrease are seen.[3]

Table 7: Status of Mala in Thyroid Disorder.

Status of Mala	Hypothyroidism	Hyperthyroidism
Sweda (Sweat)	Dry skin, scaliness (due to sweat	Increased sweating, foul odor, itching.

	deficiency).	
Purish (Feces)	Constipation, abdominal hardness, flatulence.	Loose stools/diarrhea.
Mutra (Urine)	Excessive urination, bed wetting.	Difficult urination, excessive thirst, dryness of mouth.

In the context of Malas (waste products), there is no specific mention of a separate Agni (metabolic fire). Malas do not have an independent origin; rather, they are a by-product (Kitta) formed during the process of Dhatu Parinaman (tissue transformation). Their quantity, characteristics, functions, and nature are entirely dependent on the quality of that transformation. The table provided above highlights the status of these Malas.

In this manner, we can analyse Thyroid Function Disorders as a manifestation of the imbalance in the Doshas, Dhatus, and Malas.

CONCLUSION

The clinical study of thyroid disorders in Ayurveda identifies the condition as a systemic disturbance of Endocrine Homeostasis, primarily driven by an imbalance in the Dosha-Dhatu-Mala axis. The core of the pathology lies in the dysfunction of Agni (metabolic fire), which dictates whether the body enters a state of pathological accumulation (Hypothyroidism) or rapid depletion (Hyperthyroidism).

The Doshic Landscape: Thyroid health is maintained by the equilibrium of the three Doshas. Their dysfunction manifests through specific subtypes: Pitta (Transformation): Primarily impacts Pachaka Pitta (digestion/metabolism). In Hypothyroidism, it is suppressed (low BMR); in Hyperthyroidism, it is overactive (weight loss, heat). Vata (Movement): Governs the nervous and circulatory systems. Vata imbalance leads to the "slow" symptoms of Hypothyroidism (bradycardia, constipation) and the "hyper" symptoms of Hyperthyroidism (tremors, palpitations, anxiety).Kapha (Structure): Provides stability. It is pathologically increased in Hypothyroidism (edema, weight gain, lethargy) and severely depleted in Hyperthyroidism (tissue wasting, insomnia).

Impact on Dhatus (Tissues): The disorder follows the Dhatu-Parinama (tissue transformation) sequence. Hypothyroidism causes "clogging" of the channels (Srotas), leading to poor quality blood (Rakta), excessive fat (Meda), and reproductive disturbances. Hyperthyroidism causes a "burnout" of tissues, leading to muscle wasting (Mamsa Kshaya), bone thinning (Asthi Kshaya), and a loss of overall vitality (Ojas).

Thyroid dysfunction is not merely a localized gland issue but a failure of systemic transformation (Pakti). For Hypothyroidism: The clinical goal is to kindle Agni and "scrape" away excess Kapha accumulation. For Hyperthyroidism: The clinical goal is to cool the Pitta fire, ground the Vata, and provide nourishment to prevent tissue collapse.

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