



Research Article

Dhatu Samya as a Fundamental Concept of Health: An Ayurvedic Perspective

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Abstract

Ayurveda describes health as a dynamic state of equilibrium among Dosha, Agni, Dhatu and Mala, along with the normal functioning of Atma, Indriya and Manas. Among these fundamental components, Dhatu constitutes the structural and functional foundation of the human body. The concept of Dhatu Samya, meaning equilibrium and proper functioning of the bodily tissues, is therefore of great importance in Ayurvedic physiology. The seven Dhatu—Rasa, Rakta, Mamsa, Meda, Asthi, Majja and Shukra—are responsible for maintaining nourishment, structure, strength, physiological functions and continuity of life.

Dhatu Samya should not be understood merely as an adequate quantity of tissues. It represents an integrated state of appropriate quantity, quality, nourishment, metabolism and physiological function of the Dhatu. The maintenance of Dhatu Samya is dependent upon proper Ahara, Jatharagni, Bhutagni, Dhatu Agni, Srotas and equilibrium of Dosha. Disturbance in these factors can result in Dhatu Kshaya, Dhatu Vriddhi or Dhatu Dushti, ultimately contributing to disease.

The present conceptual review explores Dhatu Samya from the perspective of Kriya Sharir and Ayurvedic physiology. Classical concepts of Sapta Dhatu, Dhatu Poshana, Dhatu Agni, Dhatu Sara, Dhatu Kshaya, Dhatu Vriddhi, Srotas, Bala and Ojas are discussed. An attempt has also been made to examine the conceptual relationship between Dhatu Samya and contemporary concepts of tissue homeostasis, nutrition, metabolism and physiological adaptation. Although Ayurvedic Dhatu cannot be considered identical to modern anatomical tissues, the concept provides a comprehensive functional framework for understanding tissue maintenance and health.

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1. INTRODUCTION

Ayurveda is a holistic science of life that emphasizes the preservation of health and prevention of disease in addition to treatment. The Ayurvedic understanding of health is fundamentally based on equilibrium. The classical definition of Swastha described in Sushruta Samhita emphasizes the balanced state of Dosha, Agni, Dhatu and Mala together with the normal condition of Atma, Indriya and Manas.

This definition establishes that health is not merely the absence of disease but a positive state of physiological and psychological equilibrium.

The human body is described through several structural and functional components, among which the Sapta Dhatu occupy a central position. The term Dhatu is derived from the Sanskrit root “Dhā”, meaning to hold, support, nourish or sustain. Dhatu therefore represents entities that support and maintain the integrity of the body.

The seven principal Dhatu are:

1. Rasa
2. Rakta
3. Mamsa
4. Meda
5. Asthi
6. Majja
7. Shukra

These Dhatu are traditionally described in a sequential order of nourishment. However, they should not be interpreted simply as seven isolated anatomical structures. Each Dhatu represents a structural-functional concept having its own characteristics, functions, metabolic activity and pathological manifestations.

The equilibrium of these Dhatu is essential for maintaining normal physiology. Disturbances may occur either through depletion, described as Dhatu Kshaya, or excessive accumulation or development, described as Dhatu Vriddhi. Abnormality may also occur at the qualitative or functional level.

The concept of Dhatu Samya therefore represents a fundamental principle of physiological health.

In contemporary physiology, the maintenance of a stable internal environment is described by the concept of homeostasis. Tissue homeostasis involves continuous processes of nutrition, metabolism, cellular renewal, repair, adaptation and removal of waste. Although the theoretical foundations of Ayurveda and contemporary biomedical science are different, certain conceptual parallels can be explored between Dhatu Samya and tissue homeostasis.

The present paper examines Dhatu Samya as an important concept of Kriya Sharir and discusses its possible relevance to modern physiological understanding.

2. Aim

To critically review the Ayurvedic concept of Dhatu Samya as a fundamental component of health and explore its physiological significance from the perspective of Kriya Sharir.

3. OBJECTIVES

1. To review the classical concept of Dhatu and Sapta Dhatu.
2. To understand the meaning and significance of Dhatu Samya.
3. To describe the functions of individual Dhatu.
4. To understand the role of Agni and Dhatu Agni in Dhatu nourishment.
5. To review the concept of Dhatu Poshana.
6. To understand Dhatu Kshaya and Dhatu Vriddhi.
7. To examine the relationship between Dhatu, Dosha, Agni and Srotas.
8. To discuss Dhatu Sara and its importance in health assessment.
9. To explore the possible relationship between Dhatu Samya and tissue homeostasis.
10. To discuss the preventive and research significance of Dhatu Samya.

4. MATERIALS AND METHODS

The present study is a conceptual literary review based on classical Ayurvedic texts and relevant secondary literature concerning Kriya Sharir and Ayurvedic physiology.

The principal classical sources considered include:

- Charaka Samhita
- Sushruta Samhita
- Ashtanga Hridaya
- Ashtanga Sangraha
- Sharngadhara Samhita
- Madhava Nidana
- Bhavaprakasha

The review was focused on the following concepts:

- Definition of Dhatu
- Sapta Dhatu
- Dhatu Samya
- Dhatu Poshana
- Dhatu Agni
- Dhatu Sara
- Dhatu Kshaya
- Dhatu Vriddhi
- Dhatu Dushti
- Dhatu and Srotas
- Dhatu and Dosha
- Dhatu and Bala
- Dhatu and Ojas
- Possible contemporary physiological interpretation

Relevant information was critically reviewed, organized and synthesized to develop an integrated understanding of Dhatu Samya.

5. Concept of Dhatu

The word Dhatu is derived from the Sanskrit root Dhā, which denotes holding, supporting, nourishing or sustaining. According to Ayurveda, Dhatu are fundamental components that maintain the body and contribute to its structural and functional integrity.

The seven Dhatu are:

Rasa → Rakta → Mamsa → Meda → Asthi → Majja → Shukra

Each Dhatu has:

- Specific location
- Specific properties
- Specific functions
- Specific metabolic activity
- Specific signs of excellence
- Specific manifestations of depletion and excess

Thus, Dhatu are simultaneously structural and functional entities.

6. Sapta Dhatu

6.1 Rasa Dhatu

Rasa is described as the first Dhatu in the sequential model of tissue nourishment. It is associated with nourishment and distribution throughout the body.

Functions of Rasa

- Nourishment of subsequent Dhatu
- Maintenance of fluidity
- Support of physiological circulation
- Maintenance of tissue hydration
- Sustenance of life

Rasa therefore represents an important nutritional and circulating dimension of physiology.

Rasa Samya

Proper Rasa contributes to:

- Adequate nourishment
- Normal hydration
- Healthy complexion
- Maintenance of vitality
- Proper tissue nutrition

Rasa Kshaya

Possible manifestations include:

- Dryness
- Weakness
- Fatigue
- Reduced nourishment
- Intolerance to exertion

6.2 Rakta Dhatu

Rakta is the second Dhatu and has a particularly important role in maintaining life and complexion.

Ayurveda gives Rakta considerable physiological importance and considers it closely associated with Pitta.

Functions

- Maintenance of life
- Nourishment
- Maintenance of complexion
- Support of physiological functions
- Contribution to tissue nourishment

Rakta Samya

Healthy Rakta is reflected through:

- Normal complexion
- Adequate vitality
- Proper tissue nourishment
- Normal physiological functioning

Rakta Kshaya

May be associated with:

- Pallor
- Weakness
- Fatigue
- Reduced vitality
- Dizziness and related manifestations

7. Mamsa Dhatu

Mamsa represents the muscular and fleshy component of the body.

Functions

1. Covering of the body
2. Support of muscular activity
3. Maintenance of physical strength
4. Protection of internal structures
5. Support of movement

Mamsa Samya

Normal Mamsa contributes to:

- Adequate muscular development
- Physical strength
- Stability
- Normal movement
- Exercise capacity

Mamsa Kshaya

May present as:

- Muscle wasting
- Weakness
- Reduced strength
- Reduced endurance
- Emaciation

Mamsa Dhatu is therefore particularly relevant to the assessment of physical strength.

8. Meda Dhatu

Meda is associated with adipose and lipid-related aspects of physiology.

Functions

- Lubrication
- Energy storage

- Protection
- Insulation
- Maintenance of softness
- Support of body stability

Meda Samya

Normal Meda contributes to:

- Appropriate body composition
- Adequate energy reserve
- Lubrication
- Protection
- Physiological stability

Meda Kshaya

May be associated with:

- Dryness
- Reduced body mass
- Weakness
- Reduced energy reserve
- Reduced lubrication

Meda Vriddhi

Meda Vriddhi is particularly important in the context of modern lifestyle disorders.

It may be associated with:

- Excess body weight
- Abdominal adiposity
- Reduced exercise capacity
- Metabolic disturbances

This makes Meda Samya an important area for preventive research.

9. Asthi Dhatu

Asthi provides the structural framework of the body.

Functions

- Structural support
- Protection of organs
- Maintenance of body framework
- Support for movement
- Stability

Asthi Samya

Normal Asthi contributes to:

- Skeletal strength
- Structural stability
- Proper posture
- Normal movement
- Protection

Asthi Kshaya

May manifest through:

- Bone weakness
- Brittleness
- Pain
- Structural instability
- Degenerative changes

The concept can be studied in relation to contemporary parameters of bone health, although direct equivalence should be avoided.

10. Majja Dhatu

Majja is traditionally described in relation to the internal spaces of Asthi and has an important role in Ayurvedic physiology.

The interpretation of Majja is complex and cannot be equated with a single modern tissue.

Functions

- Filling of bone cavities
- Nourishment
- Support of strength
- Contribution to physiological stability

Majja Samya

May be reflected through:

- Adequate strength
- Proper nourishment
- Healthy structural function
- Physiological stability

Majja Kshaya

May be associated with:

- Weakness
- Reduced vitality
- Bone-related complaints
- Functional disturbances

11. Shukra Dhatu

Shukra is the seventh Dhatu and is associated with reproductive capacity, generative potential and vitality.

The Ayurvedic concept of Shukra is broader than semen alone.

Functions

- Reproduction
- Generative potential
- Vitality
- Strength
- Contribution to conception

Shukra Samya

Normal Shukra contributes to:

- Reproductive competence
- Healthy reproductive function
- Vitality
- Physical strength

Shukra Kshaya

May manifest through:

- Reduced reproductive capacity
- Weakness
- Reduced reproductive vitality
- Disturbance of reproductive function

12. Meaning of Dhatu Samya

The term Samya indicates equilibrium, normality or balanced functioning.

Therefore, Dhatu Samya can be understood as the state in which all seven Dhatu are appropriately nourished and maintain their normal structural, qualitative and functional status.

Dhatu Samya includes:

12.1 Quantitative equilibrium

The amount of each Dhatu should be appropriate to the individual's physiological requirements.

12.2 Qualitative equilibrium

The Dhatu should possess appropriate physiological characteristics.

12.3 Functional equilibrium

Each Dhatu should perform its physiological functions properly.

12.4 Nutritional equilibrium

The Dhatu should receive adequate nourishment.

12.5 Metabolic equilibrium

Proper transformation and utilization should occur at the tissue level.

Thus, Dhatu Samya is a multidimensional concept.

13. Dhatu Poshana

Dhatu Poshana refers to the nourishment and maintenance of the Dhatu.

According to Ayurvedic physiology, food undergoes digestion and transformation before the resulting nutritional essence contributes to tissue nourishment.

The process is influenced by:

- Jatharagni
- Bhutagni
- Dhatu Agni
- Dosha
- Srotas
- Ahara
- Prakriti
- Age
- Physical activity
- Disease status

Proper Dhatu Poshana is therefore essential for maintaining Dhatu Samya.

14. Role of Agni in Dhatu Samya

Agni is central to Ayurvedic physiology.

The primary function of Agni is transformation.

A simplified physiological sequence may be represented as:

Ahara → Jatharagni → Nutritional essence → Dhatu Agni → Dhatu Poshana → Dhatu Samya

If Agni is balanced, the nutritional material can be properly transformed and utilized.

If Agni becomes impaired, tissue nourishment may also become disturbed.

Therefore:

Agni Samya → Proper Dhatu Poshana → Dhatu Samya

This demonstrates why Agni is considered a fundamental determinant of health.

15. Dhatu Agni

Each Dhatu is associated with its own metabolic principle, termed Dhatu Agni.

The seven Dhatu Agni are:

1. Rasagni
2. Raktagni
3. Mamsagni
4. Medagni
5. Asthyagni
6. Majjagni
7. Shukragni

Dhatu Agni is responsible for the transformation and utilization of nutrients at the level of the respective Dhatu.

Normal Dhatu Agni

Contributes to:

- Proper tissue formation
- Appropriate tissue nourishment
- Maintenance of Dhatu
- Normal physiological function

Impaired Dhatu Agni

May result in:

- Improper tissue nourishment
- Accumulation of abnormal metabolic products
- Dhatu dysfunction
- Dhatu Kshaya or abnormal accumulation

Thus, balanced Dhatu Agni is fundamental to Dhatu Samya.

16. Dhatu Poshana Nyaya

Ayurvedic literature describes different conceptual models to explain Dhatu nourishment.

The principal theories include:

1. Ksheera-Dadhi Nyaya
2. Kedari-Kulya Nyaya
3. Khale-Kapota Nyaya

16.1 Ksheera-Dadhi Nyaya

This analogy describes transformation from one stage into another, similar to the transformation of milk into curd.

It emphasizes sequential transformation.

16.2 Kedari-Kulya Nyaya

This analogy compares nutrient distribution with irrigation channels supplying different agricultural fields.

It emphasizes transportation and distribution.

16.3 Khale-Kapota Nyaya

This analogy describes selective utilization of nutritional substances, similar to pigeons selecting suitable grains. It emphasizes selective uptake and utilization. These theories collectively demonstrate that Ayurvedic physiology views tissue nourishment as a dynamic and organized process.

17. Dhatu and Srotas

Srotas are channels involved in transportation and exchange.

Proper Srotas function is essential for:

- Nutrient transportation
 - Tissue nourishment
 - Metabolic exchange
 - Waste removal
 - Maintenance of physiological integrity
- Disturbance of Srotas may interfere with Dhatu Poshana.

Therefore:

Srotas → Transportation → Dhatu Poshana → Dhatu Samya

This relationship provides an important physiological link between circulation, nutrition and tissue maintenance.

18. Relationship of Dosha with Dhatu

Dosha and Dhatu are interdependent components of the body.

Vata

Vata influences:

- Movement
- Transportation
- Circulation
- Distribution
- Functional activity

Pitta

Pitta influences:

- Digestion
- Transformation
- Metabolism
- Biochemical processes

Kapha

Kapha contributes to:

- Stability
- Lubrication
- Cohesion
- Structure
- Support

Thus, normal Dhatu function requires appropriate Dosha equilibrium.

19. Dhatu and Bala

Bala refers broadly to strength and resistance.

Healthy Dhatu contributes to:

- Physical strength
- Exercise tolerance
- Recovery

- Functional capacity

- Resistance to physiological stress

Conversely, prolonged Dhatu Kshaya may result in reduced Bala.

Therefore, assessment of Dhatu is important in understanding individual strength and functional capacity.

20. Dhatu and Ojas

Ojas is an important concept associated with vitality, resistance and physiological stability.

Proper Dhatu nourishment supports the maintenance of Ojas.

The relationship can be represented as:

Proper Ahara → Proper Agni → Proper Dhatu Poshana → Healthy Dhatu → Ojas support → Bala

Therefore, Dhatu Samya may contribute indirectly to maintenance of vitality and resistance.

21. Dhatu Sara

Dhatu Sara represents the excellence of a particular Dhatu.

Ayurveda describes different forms of tissue excellence, including:

- Tvak Sara
- Rakta Sara
- Mamsa Sara
- Meda Sara
- Asthi Sara
- Majja Sara
- Shukra Sara

Assessment of Dhatu Sara may provide information regarding:

- Tissue quality
- Strength
- Constitutional characteristics
- Functional capacity
- General health status

This concept is particularly relevant to individualized assessment in Ayurveda.

22. Dhatu Kshaya

Dhatu Kshaya represents reduction or depletion of a particular Dhatu.

Possible contributing factors include:

- Inadequate nutrition
- Impaired digestion
- Impaired metabolism
- Chronic disease
- Excessive physical activity
- Prolonged fasting
- Age-related changes
- Dosha disturbance

The clinical manifestations depend upon the particular Dhatu affected.

For example:

Mamsa Kshaya → muscular wasting and weakness

Meda Kshaya → excessive dryness and reduced adipose reserve

Asthi Kshaya → skeletal weakness

Shukra Kshaya → reproductive and vitality-related disturbances

Dhatu Kshaya therefore represents an important pathological dimension of tissue imbalance.

23. Dhatu Vriddhi

Dhatu Vriddhi refers to excessive increase or abnormal accumulation of a Dhatu.

It may result from:

- Excessive nourishment
- Improper diet
- Sedentary lifestyle
- Metabolic disturbances
- Dosha involvement

Meda Vriddhi is particularly relevant to contemporary lifestyle disorders involving obesity and metabolic dysfunction.

Both Dhatu Kshaya and Dhatu Vriddhi demonstrate that health depends upon maintaining appropriate physiological limits.

24. Dhatu Samya and Nutrition

Nutrition is fundamental to tissue maintenance.

Inadequate nutritional intake may result in:

- Loss of body mass
- Reduced muscle mass
- Reduced energy reserve
- Impaired tissue repair
- Reduced reproductive capacity

Excessive nutrition may contribute to:

- Increased adiposity
- Abnormal body composition
- Metabolic disturbances
- Lifestyle-related disease

Ayurveda emphasizes appropriate quantity and quality of food along with consideration of Agni and individual constitution.

Therefore, Dhatu Samya provides a useful framework for understanding the relationship between diet and tissue health.

25. Dhatu Samya and Lifestyle

Modern lifestyle is characterized by:

- Sedentary behavior
- Irregular food habits
- Excessive caloric intake
- Sleep disturbance
- Psychological stress
- Reduced physical activity

These factors may disturb digestion, metabolism and tissue equilibrium.

Ayurvedic preventive principles emphasize:

- Dinacharya
- Ritucharya
- Appropriate Ahara
- Vihara
- Vyayama
- Nidra
- Mental equilibrium

These practices can be viewed as supportive measures for maintaining physiological equilibrium.

26. Dhatu Samya and Contemporary Concept of Homeostasis

Homeostasis refers to the maintenance of a relatively stable internal environment despite continuous physiological and environmental changes.

Modern tissue homeostasis involves:

- Nutrient supply
- Cellular metabolism
- Cell renewal
- Tissue repair
- Waste removal
- Adaptation
- Regulatory mechanisms

Dhatu Samya may be conceptually compared with this broad principle of physiological equilibrium.

However, Ayurvedic Dhatu should not be considered identical to modern anatomical tissues.

The relationship is better understood as a conceptual parallel.

27. Conceptual Correlation with Modern Physiology

Ayurvedic Concept	Possible Contemporary Correlation
Dhatu Samya	Tissue and physiological homeostasis
Dhatu Poshana	Nutrient utilization and tissue maintenance
Dhatu Agni	Tissue-level metabolism
Rasa	Nutritional/fluid transport functions
Rakta	Blood-related physiological functions
Mamsa	Muscular tissue
Meda	Adipose and lipid-related functions
Asthi	Skeletal tissue
Majja	Marrow/neural-related conceptual domain
Shukra	Reproductive functions
Srotas	Transport and exchange pathways
Bala	Functional strength and resilience
Ojas	Broad concept of vitality and resistance

These correlations are conceptual and should not be interpreted as direct one-to-one equivalence.

28. Dhatu Samya and Tissue Homeostasis

Tissue homeostasis requires continuous:

- Nutritional support
- Metabolic transformation
- Cellular repair
- Growth
- Regeneration
- Adaptation
- Removal of damaged components

Similarly, Ayurveda describes Dhatu as continuously nourished and transformed.

Therefore, the following conceptual relationships can be proposed:

Dhatu Poshana ↔ Tissue nutrition and maintenance

Dhatu Agni ↔ Tissue metabolism

Dhatu Samya ↔ Tissue functional equilibrium

Dhatu Kshaya ↔ Tissue depletion

Dhatu Vriddhi ↔ Excessive tissue accumulation

These relationships may provide a basis for interdisciplinary research.

29. Dhatu Samya and Preventive Healthcare

Maintenance of Dhatu Samya may be supported by:

1. Balanced diet
2. Proper digestion
3. Appropriate physical activity
4. Adequate sleep
5. Stress management
6. Proper daily routine
7. Seasonal adaptation
8. Avoidance of incompatible food
9. Maintenance of healthy body composition
10. Personalized lifestyle management

This emphasizes the preventive dimension of Ayurveda.

30. Clinical Significance

Dhatu assessment may help in understanding:

- Nutritional status
- Tissue strength
- Body composition
- Chronic depletion
- Excessive accumulation
- Recovery capacity
- Age-related changes
- Functional status

Classical parameters such as Dhatu Sara, Bala, Agni, Ahara Shakti and Vyayama Shakti may be considered together for comprehensive assessment.

31. Dhatu Samya as a Dynamic Process

Dhatu Samya should not be considered a static condition.

The body continuously undergoes:

- Growth
- Development
- Metabolism
- Repair
- Adaptation
- Aging

Consequently, Dhatu requirements and characteristics change according to:

- Age
- Season
- Diet
- Activity
- Disease
- Environment
- Prakriti

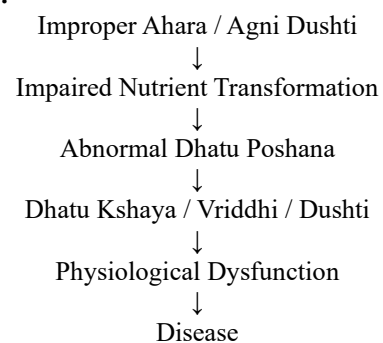
Thus, Dhatu Samya can be understood as dynamic physiological equilibrium rather than a fixed state.

32. Proposed Physiological Model

A conceptual model of Dhatu Samya may be represented as:



Conversely:



33. Relevance to Kriya Sharir

Dhatu Samya has direct relevance to Kriya Sharir, which deals with normal physiological functioning.

It helps explain:

- Tissue nourishment
- Growth
- Development
- Metabolism
- Strength
- Reproduction
- Structural maintenance
- Physiological adaptation

Understanding Dhatu Samya therefore provides a physiological foundation for understanding the transition from health to disease.

34. Research Perspectives

The concept of Dhatu Samya offers several opportunities for future research.

34.1 Dhatu Sara and Anthropometry

Studies may evaluate relationships between Dhatu Sara and:

- BMI
- Body composition
- Muscle mass
- Mid-upper arm circumference
- Bone-related parameters

34.2 Dhatu Sara and Physiological Parameters

Possible correlations may include:

- Hemoglobin
- Serum biochemical parameters
- Grip strength
- Exercise capacity
- Resting physiological parameters

34.3 Dhatu Samya and Lifestyle

Research may investigate relationships between Dhatu status and:

- Dietary pattern
- Physical activity
- Sleep
- Stress
- Sedentary behavior

34.4 Dhatu Kshaya in Chronic Disease

The classical features of Dhatu Kshaya may be evaluated in selected chronic diseases.

34.5 Dhatu Samya and Healthy Aging

Longitudinal studies may investigate changes in Dhatu characteristics across different age groups.

35. DISCUSSION

The concept of Dhatu Samya represents an important dimension of Ayurvedic physiology. It demonstrates that Ayurveda considers the body as an integrated system in which nutrition, metabolism, tissue formation, transportation and physiological function are interconnected.

The first important consideration is that Ayurvedic Dhatu cannot always be directly mapped onto modern anatomical tissues. For example, Rasa is broader than plasma, Rakta has a wider physiological significance than a simple description of blood, and Shukra is broader than semen. Therefore, direct one-to-one translation may result in conceptual oversimplification.

Instead, Dhatu may be understood as structural-functional physiological categories.

The second important consideration is the role of Agni. Ayurveda gives digestion and metabolism a central role in

tissue health. Nutritional substances must be appropriately transformed before they can support tissue maintenance. This is conceptually relevant to contemporary physiology, in which digestion, absorption, metabolism and cellular utilization are essential for tissue integrity.

The third consideration is the role of Srotas. Dhatu require appropriate transport and exchange for their maintenance. Modern physiology similarly emphasizes circulation, nutrient delivery, interstitial exchange and waste removal.

The fourth consideration is the recognition of both deficiency and excess. Contemporary healthcare faces both malnutrition and overnutrition. Dhatu Kshaya and Dhatu Vriddhi provide a theoretical framework through which both ends of this spectrum can be considered.

The fifth consideration is individual variation. Ayurveda recognizes Prakriti, age, dietary habits, physical activity and other factors in determining physiological status. This is compatible with the broader contemporary movement toward personalized and preventive healthcare.

Thus, Dhatu Samya can serve as an important conceptual bridge for interdisciplinary research while retaining its original Ayurvedic framework.

36. Limitations

1. Dhatu are multidimensional Ayurvedic concepts and cannot always be directly equated with modern anatomical tissues.
2. The present paper is a conceptual review and not an experimental clinical study.
3. Modern correlations presented in this article are interpretative.
4. Objective and standardized tools for assessing Dhatu Samya require further validation.
5. More observational and clinical research is required to establish measurable parameters of Dhatu Samya.
6. Future research should preserve the classical meaning of Ayurvedic concepts while using appropriate modern research methodology.

37. CONCLUSION

Dhatu Samya is a fundamental concept of Ayurvedic health and physiology. The seven Dhatu—Rasa, Rakta, Mamsa, Meda, Asthi, Majja and Shukra—constitute an integrated framework for understanding the structural and functional maintenance of the human body.

Dhatu Samya encompasses appropriate quantity, quality, nourishment, metabolism and physiological functioning of the Dhatu. Its maintenance depends on proper Ahara, Agni, Dhatu Agni, Srotas, Dosha equilibrium, lifestyle, Prakriti and age.

The concepts of Dhatu Poshana and Dhatu Agni indicate that Ayurveda recognizes tissue nourishment as a continuous metabolic process. Dhatu Kshaya and Dhatu Vriddhi demonstrate that both depletion and excessive accumulation may disturb physiological equilibrium.

From a contemporary perspective, Dhatu Samya can be conceptually related to tissue homeostasis, nutrition,

metabolism, tissue repair, body composition and physiological adaptation. However, Ayurvedic Dhatu should not be reduced to direct biomedical equivalents. Dhatu Samya may therefore be considered a dynamic state of structural, nutritional and functional tissue equilibrium contributing to Swasthya.

Further clinical and observational research integrating classical Ayurvedic assessment with validated physiological and biochemical parameters may help establish measurable models of Dhatu Samya and enhance the evidence base of Ayurvedic physiology.

38. Tables

Table 1. Sapta Dhatu and Major Functions

Dhatu	Major Functions
Rasa	Nourishment, fluidity, transportation, and support of subsequent Dhatu
Rakta	Life maintenance, nourishment, and complexion
Mamsa	Covering, muscular structure, movement, and strength
Meda	Lubrication, protection, and energy storage
Asthi	Structural support and protection
Majja	Filling of bone cavities, nourishment, and strength
Shukra	Reproduction, vitality, and generative function

Table 2. Factors Influencing Dhatu Samya

Factor	Role
Ahara	Provides nutritional substrate
Jatharagni	Digestion and primary transformation
Bhutagni	Elemental transformation
Dhatu Agni	Tissue-level transformation
Srotas	Transportation and exchange
Dosha	Regulation of physiological activity
Prakriti	Individual physiological tendency
Vaya	Age-related variation
Vyayama	Supports strength and metabolism
Nidra	Recovery and restoration
Manas	Influences lifestyle and physiological regulation

Table 3. Conceptual Correlation

Ayurvedic Concept	Contemporary Conceptual Parallel
Dhatu Samya	Tissue/physiological homeostasis
Dhatu Poshana	Tissue nutrition and maintenance
Dhatu Agni	Tissue/cellular metabolism
Dhatu Kshaya	Tissue depletion/atrophy
Dhatu Vriddhi	Excess tissue accumulation
Srotas	Transport and exchange pathways
Agni	Digestion and metabolic transformation
Bala	Functional capacity and resilience
Ojas	Broad concept of vitality and resistance

39. Future Scope

The concept of Dhatu Samya can be developed into measurable research models. Future studies may investigate:

- Development of a standardized Dhatu Samya Assessment Scale
- Correlation of Dhatu Sara with anthropometric parameters
- Relationship between Dhatu status and biochemical markers
- Assessment of Dhatu Samya in healthy individuals
- Evaluation of Dhatu Kshaya in chronic diseases
- Relationship between Dhatu Samya and lifestyle disorders
- Age-wise assessment of Sapta Dhatu characteristics
- Relationship between Prakriti and Dhatu Sara
- Dhatu status and physical performance
- Dhatu Samya and healthy aging

Such research may contribute to evidence-based development of Ayurvedic physiology.

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