



CONCEPTUAL ANALYSIS OF *Dosha–Panchamahabhuta* RELATION WITH *Dhatu*: AN AYURVEDIC PERSPECTIVE

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ABSTRACT

Background: Ayurveda explains that the human body is sustained by the tridosha (*vāta*, *pitta*, *kapha*), *pañchamahabhūta* (five elements), and *sapta dhatu* (seven tissues). Each *dhatu* is composed of specific elemental combinations and governed by *dosha* predominance.

Objective: To analyze the correlation between *panchamahabhuta* and *dosha* with each *dhatu*, highlighting their physiological roles and clinical implications.

Methods: Classical Ayurvedic texts and modern secondary literature and articles were reviewed to identify the *dosha* associations of each *dhatu* with respect to *panchamahabhuta*

Results: *Rasa*, *māmsa*, *meda*, and *majjā* are predominantly *kapha* *pradhana* with *Āpa mahabhuta* predominance; *rakta* and *śukra* reflect *pitta* influence with *Tejobhuta* predominance; *asthi* aligns with *vāta* with *vayu-akasha* *pradhana*. Each *dhatu* physiological function corresponds to its *panchamahabhuta* composition and state of *dosha*

Conclusion: *Dhatu samya* depends on balanced *pañchamahabhūta* and *tridosha*. Disturbance in elemental harmony leads to *dosha* derangement and *dhatu duṣṭi*. Understanding these correlations enhances clinical reasoning in Ayurveda.

KEYWORDS: Ayurveda, *Dhatu*, *Duṣṭi*, Homeostasis, Physiology

INTRODUCTION

Ayurveda regards the human body as a microcosm of the universe, composed of *panchamahabhuta*—*ākāśa* (ether), *vāyu* (air), *tejas* (fire), *āpa* (water), and *prthvī* (earth). These elements manifest physiologically as the *tridosha*: *vāta*, *pitta* and *kapha*, which maintain dynamic equilibrium [1–3]. The *sapta dhatu*—*rasa*, *rakta*, *māmsa*, *meda*, *asthi*, *majjā*, and *śukra* are described as supporting pillars of the body (*śarīra dhāra*) [1]. Each *dhatu* is nourished sequentially through metabolism (*dhatu-parināma*) and sustains structural and functional integrity [4]. Analyzing the *panchamahabhuta* basis of *dhatu* provides insights into Ayurvedic pathology. *Dhatu duṣṭi* (vitiation of tissues) occurs when *dosha* disturb their elemental balance, leading to systemic diseases [5].

MATERIALS AND METHODS

The data were sourced from Ayurvedic classics like *Charaka Saṃhitā*, *Suśruta Saṃhitā*, *Aṣṭāṅga Hṛdaya*, and *Bhāvaprakāśa* were reviewed, along with modern Ayurvedic interpretations. Article references were identified from PubMed and Google Scholar with reference to Ayurveda, *panchamahabhuta*, *dhatu*, *tridosha* physiology. Furthermore, A conceptual mapping was undertaken to align each *dhatu* with dominant *panchamahabhuta* and *dosha*, supported by classical citations and physiological functions.

DISCUSSION

1. *Mahabhuta* entity and physiology of *Rasa Dhatu*

It is composed of chiefly *Āpa* and *Prthvī mahabhuta* with predominant *dosha* being *Kapha*. The function can be inferred

with nutritional fraction of *ahara rasa* that nourishes subsequent *dhatu*. Liquidity and cohesiveness arise from *āpa* and *prthvī bhuta*. *Vāta* may contribute to proper circulation of *rasa* throughout the body whereas *pitta* can add metabolic transformation of food into energy [1,4]. *Vridhhi* of *rasa dhatu* can cause fluid overload, edema, lymphatic congestion, polycythemia. Clinically expressed as heaviness, nausea, excessive salivation. *Kṣhaya* of *rasa dhatu* can lead to Dehydration, hypovolemia, cachexia, chronic fatigue syndrome. Leads to dryness, palpitations, weakness [2].

2. *Mahabhuta* entity and physiology of *Rakta Dhatu*

It is composed of chiefly *Agni* and *Āpa mahabhuta* with predominant *dosha* being *pitta*. The function of *rakta dhatu* is mainly focussed on maintenance of vitality, oxygenation, and complexion. *Agni* provides color and heat, *āpa* maintains fluidity. *Pitta* may regulate transformation and oxygen transport [2]. *Vridhhi* of *rakta dhatu* can cause Polycythemia, hypertension, inflammatory disorders, hyperbilirubinemia. Symptoms include skin redness, burning, bleeding tendencies [3]. *Kṣhaya* of this *dhatu* can particularly cause Anemia, ischemia, leukopenia with clinical signs of pallor, cold extremities, fatigue [4].

3. *Mahabhuta* entity and physiology of *Mamsa Dhatu*

It is composed of chiefly of the *panchamahabhuta Prithvī* and *Āpa*. The predominant *dosha* being *Kapha*, it is focussed on providing bulkiness, strength, and form. Solidity (*prthvī*) and cohesiveness (*āpa*) dominate. *Kapha* can support growth, while *vāta* may govern muscular movement [1,3]. *Vridhhi* of this *dhatu* can cause muscular hypertrophy, fibrotic growth and



benign tumors producing signs like heaviness, stiffness, restricted mobility that can be correlated to contemporary science[5]. *Kshaya* of this *dhatu* can particularly cause muscle wasting, sarcopenia, myopathies. Symptoms: emaciation, weakness, loss of contour [6].

4. Mahabhuta entity and physiology of Medho Dhatu

It is composed of chiefly of the *panchamahabhuta*, *Āpa* and *prithvī* with *dosha* predominance being *kapha*. It is mainly concerned in lubrication, cushioning, and energy storage in the body. Oily quality of a person in *prakruti* and stability (*prithvī*) reflect *kapha* predominance. *Pitta* may modulate lipid metabolism; *vāta* can enables fat mobilization [4]. *Vridhhi* of this *dhatu* leads to Obesity, hyperlipidemia, fatty liver, metabolic syndrome. Clinical correlation can be compared to excessive sweating, lethargy, dyspnea which is further a *dusti* in *apa* and *prithvi mahabhuta* [7]. *Medo Kshaya* can lead to Lipodystrophy, cachexia, malabsorption syndromes. Symptoms: dryness of joints, debility, fatigue [8].

5. Mahabhuta entity and physiology of Asthi Dhatu

It is primarily composed of *prithvī* and *vāyu mahabhuta*, with its *dosha* correlation is inversely proportional to *vata dosha*. It is concerned with proper skeletal support and protection. Density may be acquired from *prithvī* and porosity may be from *vāyu*. *Vāta* governs mobility and framework integrity in the body through *Asthi dhatu* [3]. *Vridhhi* of this *dhatu* can cause Osteophytes, abnormal calcification, bony overgrowths. Clinical correlation can be done through symptoms like stiffness, immobility, heaviness [9]. *Kshaya* of *asthi dhatu* can lead to Osteoporosis, osteopenia, degenerative joint disease associated with fragility and fractures, dental weakness, bone pain [10].

6. Mahabhuta entity and physiology of Majja Dhatu

Majjā Dhatu has predominance of *Āpa* and *Ākāśa mahabhuta*. It is primarily influenced through *vata-kapha dosha* Its main function is supporting the bone, nourishes *śukra* (area of production of *śukra dhatu* – *anushukra* and mediates neural conduction. *Āpa mahabhuta* ensures lubrication, *ākāśa mahabhuta* provides space and elemental structure. *Kapha* can help in stabilization, *vāta* may help in regulating nervous activity [2,5]. *Vridhhi* of this *dhatu* can affect *vata dosha* ultimately leading to bone marrow hyperplasia, leukemia, intracranial space-occupying lesions. Symptoms can be clinically correlated with heaviness in bones, headaches, drowsiness [11]. *Kshaya* of this *dhatu* may lead to Aplastic anemia, demyelinating disorders, neurodegenerative diseases like Parkinson's and Alzheimer's. Clinical correlation may be done with temporary dizziness, fatigue, neurological deficits [12].

7. Mahabhuta entity and physiology of Majja Dhatu

Śukra Dhatu is formed by *Āpa* and *Agni mahabhuta*. it's the only *dhatu* that's maintained by stability of *Tridosha*. Its functions include maintenance of Reproductive essence and continuity of life contributing *ojas*. *Āpa* may provide fluidity in *śukra*; *agni* can ensures maintenance of virility with hormone production. *Vāta* can be assigned in governance of ejaculation/ovulation, *pitta* can help in induction of semen production, *kapha* with adding bulkiness through other secretory fluids [1,4]. *Vridhhi* of *śukra* can cause hypersexuality disorders, polycystic ovarian morphology, semen hyperviscosity. Symptoms can be clinically correlated with excessive desire, genital heaviness and seminal calculi [13]. *Kshaya* can lead to Infertility, oligospermia, erectile dysfunction, amenorrhea. Clinical correlation can be done with reduced vitality, sexual debility, infertility [14].

Table 1. Dosha–Panchamahabhuta–Dhatu Relation

Dhatu Dominant Panchamahabhuta Dosha Predominance Key Function

Dhatu	Dominant Panchamahabhuta	Dosha Predominance	Key Function
Rasa	Āpa + Prthvī	Kapha	Nutrition, circulation
Rakta	Agni + Āpa	Pitta	Vitality, oxygen transport
Māmsa	Prthvī + Āpa	Kapha	Strength, form
Meda	Āpa + Prthvī	Kapha	Lubrication, fat storage
Asthi	Prthvī + Vāyu	Vāta	Support, framework
Majjā	Āpa + Ākāśa	Kapha (Vāta)	Nourishment, conduction
Śukra/Ārtava	Āpa + Agni	Tridosic balance	Reproduction, vitality

CONCLUSION

The *sapta dhatu* embody distinct *panchamahabhuta* combinations and are regulated by specific *dosha*. This inter-relationship explains both normal physiology and pathological progression. Understanding these associations refines diagnostic and therapeutic strategies in Ayurveda, allowing practitioners to address elemental imbalances at their root.

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