

**DRAVADRAVYA VIJNANIYA AND ANNASWAROOPA VIJNANIYA ADHYAYAS: A CRITICAL REVIEW OF AYURVEDIC PHARMACOGNOSY AND FOOD SCIENCE PRINCIPLES*****¹Dr. Shivani R. Naxine, ²Dr.Priti V. Gahukar, ³Dr. Preeti V. Sahu, ⁴Dr. Ashvini P. Datir**

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ABSTRACT

Among the foundational chapters of *Charaka Samhita*, the *Dravadravya Vijnaniya Adhyaya* (Sutra Sthana, Chapter 1) and the *Annaswaroopa Vijnaniya Adhyaya* (Sutra Sthana, Chapter 27) occupy a position of singular pharmacological and nutritional significance. The former delineates a comprehensive ontological and pharmacodynamic framework for medicinal substances (*Dravya*) through the five-parameter model of *Rasa-Virya-Vipaka-Prabhava* and the twenty *Gunas*, while the latter applies an equivalent analytical paradigm to dietary substances (*Ahara*) through twelve classified food groups (*Ahara Varga*). The present critical review systematically examines both adhyayas within a structured IMRAD framework, drawing sustained comparisons between classical Ayurvedic pharmacognostic principles and contemporary pharmacology, nutritional biochemistry, and precision medicine. Findings reveal robust conceptual convergence between the *Rasa Panchaka* framework and modern pharmacodynamic classification systems, and between *Ahara Varga* attributes and current evidence in nutrigenomics, functional food science, and clinical dietotherapy. Both adhyayas, viewed in tandem, represent an integrated pharmacognostic-nutritional continuum of enduring translational relevance for pharmacopoeia development, integrative clinical practice, and doctoral-level Ayurvedic research.

KEYWORDS: *Dravadravya Vijnaniya, Annaswaroopa Vijnaniya, Charaka Samhita, Rasa Panchaka, Ahara Varga, Dravyaguna Vijnana, Ayurvedic pharmacognosy, functional food science, integrative medicine.*

I. INTRODUCTION

The systematic preservation of medicinal and nutritional knowledge within the corpus of classical Ayurvedic literature represents one of the most sustained intellectual endeavours in the history of pre-modern biomedical science.^[1] Among the classical compilations that constitute this heritage, the *Charaka Samhita* — attributed to the sage Agnivesha and revised by Charaka and Dridhabala — holds a position of foremost authority.^[2] Its Sutra Sthana, comprising the foundational doctrinal chapters, contains two adhyayas whose

pharmacological and nutritional content bears sustained relevance to contemporary biomedical inquiry: the first chapter, *Dravadravya Vijnaniya Adhyaya*, and the twenty-seventh chapter, *Annaswaroopa Vijnaniya Adhyaya*.^[3]

The *Dravadravya Vijnaniya Adhyaya* establishes the ontological and pharmacodynamic architecture of Ayurvedic drug science through the tripartite relationship of *Dravya* (substance), *Guna* (quality), and *Karma* (action).^[4] Within this framework, the chapter introduces

the *Rasa Panchaka* — an integrated five-parameter pharmacological descriptor comprising *Rasa* (taste), *Virya* (potency), *Vipaka* (post-digestive effect), *Prabhava* (idiosyncratic action), and the twenty *Gunās* — as the definitive model for characterising every pharmacologically active substance in nature.^[5,6] This analytical apparatus anticipates, in its systemic rigour, the pharmacognostic and pharmacodynamic classification frameworks that characterise contemporary drug science.^[7]

The *Annaswaroopa Vijnaniya Adhyaya* extends this pharmacological paradigm to the domain of nutrition, providing a twelve-category classification of dietary substances under the heading of *Ahara Varga*.^[8] Each food category — encompassing cereal grains (*Shuka Dhanya*), legumes (*Shimbi Dhanya*), flesh foods (*Mamsa*), leafy vegetables (*Shaka*), fruits (*Phala*), dairy products (*Dugdha*), and processed preparations (*Kritanna*), among others — is systematically characterised by its *Rasa*, *Guna*, *Virya*, *Vipaka*, *Prabhava*, and *Dosha Karma*.^[9,10] The analytical sophistication of this classification rivals, and in several respects surpasses, the uniaxial macronutrient-based categorisation that has dominated modern dietetics until the recent emergence of precision nutrition.^[11]

Notwithstanding the foundational significance of both *adhyayas*, doctoral-level critical reviews that systematically correlate their content with the methodological standards of contemporary pharmacognosy, nutritional biochemistry, and evidence-based medicine remain conspicuously sparse in the peer-reviewed literature.^[12] Existing scholarly contributions largely confine themselves to exegetical commentary or single-disease clinical applications, without engaging the broader biomedical translational dimensions of these texts.^[13] The present review addresses this scholarly gap through a structured IMRAD analysis designed to serve the needs of graduate researchers, clinician-scholars, and policy architects working at the interface of Ayurvedic and contemporary biomedical science.^[14]

The specific objectives of this review are: (i) to critically examine the pharmacological epistemology of *Dravadravya Vijnaniya Adhyaya* in relation to contemporary pharmacognosy and molecular pharmacology; (ii) to conduct a systematic analysis of the dietary classification framework of *Annaswaroopa Vijnaniya Adhyaya* in the context of current nutritional science; (iii) to identify conceptual convergences and divergences between the classical frameworks of both *adhyayas* and their modern biomedical counterparts; and (iv) to delineate research gaps and translational opportunities for doctoral-level investigation.^[15,16]

II. MATERIALS AND METHODS

2.1 Study Design and Methodological Framework

This investigation employs a structured critical review methodology, integrating classical textual hermeneutics

with evidence-based medicine principles in a modified PRISMA-aligned framework adapted for comparative Ayurvedic-biomedical text analysis.^[17] The study is descriptive-analytical in design, with structured comparison tables serving as quantitative surrogates for qualitative pharmacological equivalences identified through the analytical process.^[18] The analytical framework is organised around four axes: (i) ontological analysis of classificatory logic; (ii) pharmacodynamic correlation of *Rasa Panchaka* parameters with molecular pharmacology; (iii) nutritional science correlation of *Ahara Varga* attributes with modern dietetics and nutrigenomics; and (iv) translational potential for pharmacopoeia development and clinical practice.^[19,20]

2.2 Primary Classical Sources

The primary sources for this review are: (i) *Dravadravya Vijnaniya Adhyaya*, Sutra Sthana, Chapter 1, of the *Charaka Samhita*, as presented in the critically edited text with the *Ayurveda-Dipika* commentary of Chakrapanidatta, published by Chaukhamba Surbharati Prakashan, Varanasi;^[1] and (ii) *Annaswaroopa Vijnaniya Adhyaya*, Sutra Sthana, Chapter 27, of the same edition.^[2] Cross-referential validation of select concepts was undertaken through *Sushruta Samhita* and *Ashtanga Hridayam*, the other constituent treatises of the *Brihat Trayi*.^[3]

2.3 Secondary Literature and Databases

Peer-reviewed secondary literature was retrieved from PubMed/MEDLINE, Scopus, Web of Science, Google Scholar, the AYUSH Research Portal, the Traditional Knowledge Digital Library (TKDL), and the CCRAS digital resource portal.^[21] Search terms employed included combinations of: *Dravadravya Vijnaniya*, *Annaswaroopa Vijnaniya*, *Rasa Panchaka* pharmacology, *Ahara Varga* dietetics, Ayurvedic pharmacognosy molecular correlation, *Dravyaguna* phytochemistry, and Ayurvedic dietotherapy clinical evidence.^[22] Publication years from 1980 through 2025 were included. Articles in English, Hindi, and Sanskrit were considered for analysis.^[23]

2.4 Inclusion and Exclusion Criteria

Inclusion criteria: Primary classical Ayurvedic texts and their authoritative commentaries; peer-reviewed articles correlating classical pharmacological or nutritional concepts with biomedical science; systematic reviews and meta-analyses in Ayurvedic drug or food science; doctoral dissertations and edited scholarly volumes from recognised Ayurvedic institutions.^[24]

Exclusion criteria: Non-peer-reviewed popular literature; clinical studies without direct reference to the *adhyayas* under review; conference abstracts without full-text availability; and studies exclusively concerned with modern pharmacology or nutrition science without Ayurvedic reference.^[24]

III. RESULTS

3.1 Comparative Overview of the Two Adhyayas

The two adhyayas examined in this review represent complementary yet analytically unified poles of a single pharmacological continuum within *Charaka Samhita*.^[1,2] The first chapter establishes the ontological and pharmacodynamic identity of medicinal *Dravya*, while

Chapter 27 applies the same analytical logic to dietary *Ahara*, creating an epistemological continuum from drug substance to food substance that is unique in classical biomedical literature.^[3,4] Table 1 presents a structured comparative overview of the two adhyayas across nine analytical parameters.^[4]

Table 1: Structured Comparative Overview of the Two Adhyayas.

Parameter	Dravadravya Vijnaniya Adhyaya	Annaswaroopa Vijnaniya Adhyaya
Position in Text	Sutra Sthana, Chapter 1	Sutra Sthana, Chapter 27
Central Subject	Medicinal substances (Dravya): their identity, properties and actions	Dietary substances (Ahara/Anna): classification of food groups and their functional attributes
Core Framework	Rasa-Virya-Vipaka-Prabhava; twenty Gunas (Dashaguna Yugala)	Twelve Ahara Varga; Rasa-Guna-Virya-Vipaka-Prabhava applied to food
Scientific Parallel	Pharmacognosy, phytochemistry, molecular pharmacology, ADME science	Nutritional biochemistry, dietetics, nutraceutical science, nutrigenomics
Dosha Relevance	Drug–Dosha modulation: drug selection based on constitutional and disease Dosha	Food–Dosha modulation; Satmya (nutritional habituation) and Okasatmya concepts
Clinical Use	Rational drug selection, polyherbal formulation, quality standardisation	Dietotherapy (Pathya-Apathya), preventive medicine, lifestyle counselling
Modern Research	Network pharmacology, metabolomics, bioavailability enhancement	Precision nutrition, gut microbiome research, functional food development
Contemporary Value	Foundation for Ayurvedic pharmacopoeia and herbal drug pipelines	Basis for Ayurvedic clinical nutrition guidelines and integrative dietotherapy

Source: *Charaka Samhita, Sutra Sthana; analytical synthesis based on classical text review*

3.2 Pharmacognostic Framework of Dravadravya Vijnaniya Adhyaya

The *Dravadravya Vijnaniya Adhyaya* opens with the declaration that every perceivable substance in the universe (*Dravya*) possesses pharmacological potential contingent upon its appropriate application in relation to person, place, and time (*Desha-Kala-Patra*).¹ This foundational assertion constitutes the earliest recorded formulation of context-dependent pharmacological activity in biomedical literature, a principle that maps directly onto the contemporary doctrines of personalised medicine and pharmacogenomics.^[7,14]

The *Rasa Panchaka* framework — comprising *Rasa* (six taste qualities), *Virya* (thermal potency: Ushna or Sheeta), *Vipaka* (post-digestive transformation into one of three resultants: Madhura, Amla, or Katu), *Prabhava* (idiosyncratic or specific action), and the twenty *Gunas* — provides a five-dimensional pharmacological descriptor system of extraordinary analytical depth.^{5,6} Table 2 presents each parameter of *Rasa Panchaka* alongside its contemporary pharmacological equivalent and associated analytical method.^[7,25]

Table 2: Rasa Panchaka Parameters and Their Contemporary Pharmacological Correlates.

Ayurvedic Parameter	Definition	Modern Pharmacological Equivalent	Analytical Method	Representative Example
<i>Rasa (Taste)</i>	Primary sensory quality perceived on contact with the tongue	Receptor-ligand interaction; phytochemical class identification	Sensory evaluation; HPLC fingerprinting; taste receptor assays	Tikta Rasa: bitter alkaloids such as berberine and quinine
<i>Virya (Potency)</i>	Dominant thermal and metabolic action exerted in vivo	Pharmacodynamic thermal profile; pro- or anti-inflammatory activity	In vitro anti-inflammatory assays; isothermal calorimetry	Ushna Virya: thermogenic and stimulant compounds
<i>Vipaka (Post-digestive transformation)</i>	Metabolic end-state produced after gastrointestinal processing	Phase I and II metabolite pharmacological activity	Metabolomics; GC-MS and LC-MS profiling of gut metabolites	Madhura Vipaka: anabolic and neuroprotective metabolites
<i>Prabhava (Specific action)</i>	Idiosyncratic action unexplained by Rasa-Virya-Vipaka	Orphan receptor activity; epigenetic modulation; microbiome-mediated	Genomic pharmacology; GWAS; microbiome	Vishahara Prabhava of Shirisha: anti-histaminic mast-cell

		effects	sequencing	stabilisation
<i>Guna (Quality)</i>	Twenty paired physicochemical attributes of every substance	Drug physicochemical properties: solubility, molecular weight, lipophilicity, viscosity	Organoleptic assessment; physicochemical standardisation; DSC	Laghu Guna: low molecular weight, high oral bioavailability

Abbreviations: HPLC – High Performance Liquid Chromatography; GC-MS – Gas Chromatography-Mass Spectrometry; LC-MS – Liquid Chromatography-Mass Spectrometry; GWAS – Genome-Wide Association Study; ADME – Absorption, Distribution, Metabolism, Excretion; DSC – Differential Scanning Calorimetry of particular pharmacognostic significance is the chapter's enumeration of the twenty *Gunas* arranged as ten antagonistic pairs (*Dashaguna Yugala*), including *Laghu-Guru* (light-heavy), *Sheeta-Ushna* (cold-hot), *Snigdha-Ruksha* (unctuous-dry), and *Tikshna-Manda* (sharp-mild), among others.^[4,5] These properties correspond, respectively, to low versus high molecular weight, anti-inflammatory versus thermogenic pharmacodynamics, lipophilic versus hydrophilic character, and rapid versus slow onset of pharmacological action — all parameters that directly govern drug ADME characteristics in contemporary pharmacokinetics.^[7,26]

The concept of *Prabhava* — a pharmacological action that cannot be predicted from the *Rasa-Virya-Vipaka* profile of a substance — represents the chapter's most prescient acknowledgment of pharmacological complexity.⁶ This construct aligns with the modern understanding of idiosyncratic drug effects mediated through orphan receptor activation, microbiome-

dependent biotransformation, and epigenetic gene regulation mechanisms that remain incompletely characterised by classical pharmacodynamic models.^[25,27] The traditionally documented anti-toxic (*Vishahara*) *Prabhava* of *Shirisha* (*Albizia lebbek*) has been partially validated through its demonstrated mast-cell stabilising and anti-histaminic alkaloid profile in contemporary research.^[28]

3.3 Dietary Classification Framework of Annaswaroopa Vijnaniya Adhyaya

The *Annaswaroopa Vijnaniya Adhyaya* constitutes one of the most exhaustive classical treatises on nutritional science extant in pre-modern biomedical literature, systematically characterising dietary substances through twelve *Ahara Varga* with multi-axial pharmacodynamic descriptors for each item within every category.^[8,9] The chapter's classification of food substances using the identical analytical apparatus applied to medicinal *Dravya* — *Rasa, Guna, Virya, Vipaka, and Prabhava* — reflects an integrated pharmacological worldview in which the boundary between drug and food is determined by dose, context, and constitutional appropriateness rather than by categorical distinction.^{10,11} Table 3 presents the twelve principal *Ahara Varga* alongside their modern food science and nutritional biochemistry correlates.^[12]

Table 3: Ahara Varga Classification and Modern Nutritional Science Correlates.

Ahara Varga	Sanskrit Term	Modern Food Category	Functional Role per Classical Text	Biomedical Significance
<i>Shuka Dhanya Varga</i>	<i>Grains and cereals</i>	Complex carbohydrates	Brimhana (anabolic, nourishing); primary Ojas builder; sustains all tissues	Resistant starch; glycaemic index regulation; prebiotic fibre
<i>Shimbi Dhanya Varga</i>	<i>Legumes and pulses</i>	Plant-sourced proteins	Balya (strength-promoting); Guru and Snigdha in quality; tissue-building	BCAA source; dietary fibre; prebiotic activity; phytoestrogen content
<i>Mamsa Varga</i>	<i>Flesh of animals</i>	Animal proteins	Highly Brimhana; principal Vatahara; direct tissue-replenishing action	Complete amino acid profile; haem iron; zinc and B12 bioavailability
<i>Shaka Varga</i>	<i>Leafy and stem vegetables</i>	Micronutrient-dense greens	Laghu, Ruksha; Pachana (digestive aid); adjuvant in disease states	Polyphenols; folate; Vitamin K; anti-inflammatory phytonutrients
<i>Phala Varga</i>	<i>Fruits</i>	Natural sugars and phytonutrients	Tarpana (satisfaction and pleasure); Pittashamana (cooling action)	Flavonoids; dietary fibre; antioxidants; glycaemic modulation
<i>Dugdha Varga</i>	<i>Milk and dairy products</i>	Complete food matrix	Rasayana (rejuvenative); Ojovardhaka; balances both Vata and Pitta	Bioactive peptides; lactoferrin; probiotic substrate; casein phosphopeptides
<i>Ikshuvikara Varga</i>	<i>Sugarcane derivatives</i>	Simple carbohydrates and sweeteners	Mutravala (diuretic); Brimhana; source of rapid energy	Sucrose metabolism; glycaemic load implications; energy substrate

<i>Kritanna Varga</i>	<i>Cooked and processed preparations</i>	Processed dietary items	Properties modified by cooking method; digestibility context-dependent	Maillard reaction products; thermal degradation; bioavailability alteration
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Source: *Charaka Samhita, Sutra Sthana 27; modern correlations synthesised from current nutritional biochemistry literature*

A particularly noteworthy feature of the *Annaswaroopa Vijnaniya Adhyaya* is its sophisticated treatment of water (*Jala Varga*), which classifies aqueous sources by geographic origin, seasonal collection period, and processing method, assigning differential physiological properties to each category.^[9,29] This classification anticipates the modern science of water quality analysis, trace mineral assessment, and the role of dissolved mineral content in metabolic homeostasis — areas of active contemporary investigation.^[30] The chapter's prescriptions regarding *Pathya* (therapeutically appropriate food) and *Apathya* (contraindicated food) in specific disease conditions prefigure the contemporary clinical construct of medical nutrition therapy, now a first-line evidence-based intervention in metabolic, inflammatory, and gastrointestinal disease management.^[11,19]

IV. DISCUSSION

4.1 Pharmacognostic Significance of *Dravadravya Vijnaniya Adhyaya*

The pharmacognostic framework articulated in *Dravadravya Vijnaniya Adhyaya* predates the formal systematisation of Western pharmacognosy by approximately two millennia, yet exhibits a degree of analytical sophistication that warrants its recognition as a proto-scientific pharmacological treatise rather than a merely empirical herbal inventory.^{1,7} The internationally adopted definition of pharmacognosy as the scientific study of physical, chemical, biochemical, and biological properties of drugs and drug substances of natural origin maps closely onto the analytical scope of this *adhyaya*'s content.^[17] The *Rasa Panchaka* framework, in particular, represents a multi-dimensional pharmacological fingerprinting system whose parameters contemporary researchers have begun to validate through systematic phytochemical and pharmacodynamic investigations.^[5,6,25]

The bidirectional *Virya* classification — *Ushna* (heat-generating, stimulant, pro-thermogenic) and *Sheeta* (cooling, anti-inflammatory, sedative) — provides a clinically operational pharmacodynamic polarity that corresponds to the anti-inflammatory versus pro-inflammatory molecular signatures now characterised through cytokine profiling, COX enzyme inhibition studies, and NFκB pathway analysis.^[26,27] Similarly, the *Vipaka* concept — the pharmacological consequence determined not by the ingested substance but by its gut-metabolised derivative — anticipates the contemporary science of pharmacomicrobiomics, in which the

therapeutic outcome of a drug or food constituent is increasingly understood to depend upon its transformation by the intestinal microbiome before systemic absorption.^[20,25]

The twenty *Gunas* merit re-evaluation as a proto-pharmacokinetic descriptor system.^[4] The classical pairing of *Laghu* (light) and *Guru* (heavy) corresponds to low and high molecular weight, respectively, and carries direct implications for oral bioavailability and rate of gastrointestinal absorption.^[7,26] The *Snigdha* (unctuous) quality corresponds to lipophilicity and membrane permeability — determinants of blood-brain barrier penetration and tissue distribution volume in contemporary pharmacokinetics.^[25] Formal recognition of *Guna Siddhanta* as an early pharmacokinetic model would represent a significant contribution to the historiography of pharmaceutical science.^[13]

4.2 Nutritional Science Significance of *Annaswaroopa Vijnaniya Adhyaya*

The *Annaswaroopa Vijnaniya Adhyaya* represents a nutritional classification system of remarkable comprehensiveness, providing pharmacodynamic descriptors for over two hundred individual food substances distributed across twelve categorical groups.^[8,10] The multi-axial framework applied to each food substance — encompassing *Rasa*, *Guna*, *Virya*, *Vipaka*, *Prabhava*, and *Dosha Karma* — is fundamentally more informationally dense than the uniaxial macronutrient classification that dominated nutritional science for most of the twentieth century, and aligns more closely with the multi-dimensional food characterisation emerging from modern metabolomics and nutrigenomics research platforms.^[11,19,20]

The chapter's *Prakriti-Ahara* correspondence — individuating dietary prescriptions according to constitutional type — anticipates the contemporary paradigm of precision nutrition.^[16,19] Individuals of *Vata Prakriti* are advised to consume *Snigdha*, *Ushna*, and *Guru* foods, which contemporary nutritional biochemistry characterises as foods rich in healthy lipids, omega-3 fatty acids, and complex carbohydrates with demonstrated neuroprotective and anti-inflammatory actions.^[20] Those of *Pitta Prakriti* are prescribed *Sheeta*, *Madhura*, and *Tika* foods, corresponding to antioxidant-rich, hepatoprotective, and metabolically cooling dietary constituents.^[24,30] The *Kapha Prakriti* dietary prescription of *Laghu*, *Ruksha*, and *Katu* foods maps onto dietary fibre, thermogenic phytochemicals, and bioactive polyphenols with established metabolic-enhancing and lipid-lowering properties — findings that resonate with outcomes from large-scale personalised nutrition trials.^[19,20]

4.3 The Integrated Dravya–Ahara Continuum

The juxtaposition of *Dravadravya Vijnaniya Adhyaya* and *Annaswaroopa Vijnaniya Adhyaya* reveals that *Charaka Samhita* operates on a seamless epistemological continuum between pharmacognosy and nutritional science — a continuum that modern biomedical science is only beginning to reconstruct through the overlapping disciplines of nutraceutical research, functional food science, and pharmaconutrition.^[12,13] The concept of *Pathya-Apathya*, which bridges both adhyayas as a unifying clinical principle, is the classical precursor to medical nutrition therapy: an individualised, disease-specific, and constitution-sensitive dietary prescription model that aligns with the current WHO recommendation for dietary management as a primary intervention in non-communicable disease.^[15,19]

Furthermore, the concept of *Satmya* (nutritional habituation or dietary acclimatisation) described in this adhyaya constitutes a classical anticipation of nutritional epigenetics — the emerging discipline concerned with the influence of dietary exposures on chromatin modification, DNA methylation patterns, and microRNA regulatory networks across generations.^[20,27] Systematic molecular investigation of *Satmya* through epigenomic and longitudinal metabolomic study designs represents a tractable and high-impact research programme for doctoral-level scholars working at the intersection of classical Ayurvedic and contemporary biomedical science.^[16,23]

4.4 Research Gaps and Future Directions

Notwithstanding the conceptual richness documented in this review, several substantive research gaps persist.^[12] First, the majority of *Rasa Panchaka* correlations with modern pharmacology remain in the domain of qualitative analogy, with systematic *in vitro* and *in vivo* pharmacological studies directly correlating *Rasa-Virya-Vipaka* profiles with molecular targets and receptor-mediated mechanisms remaining few.^[5,25] Second, the *Ahara Varga* classification lacks standardised chemical profiling of its constituent food items; integration with modern metabolomics databases (HMDB, FooDB, PhytoHub) would provide the quantitative foundation necessary for evidence-based validation.^[20,22] Third, randomised controlled trials specifically validating *Pathya-Apathya* prescriptions from *Annaswaroopa Vijnaniya Adhyaya* in metabolic syndrome, inflammatory bowel disease, and type 2 diabetes mellitus remain largely absent from the clinical trial registries.^[15,24] Fourth, the pharmacokinetic modelling of *Vipaka* using modern metabolomic tracking of post-digestive metabolites constitutes a tractable high-impact research programme that has not yet been formally initiated.^[25,26]

4.5 Limitations

This review is subject to limitations inherent in classical text analysis, including the challenge of semantic equivalence: classical Sanskrit pharmacological terminology does not map onto modern biomedical

constructs in a strict one-to-one fashion, and translational equivalences proposed herein are analytical approximations rather than definitional identities.¹³ The absence of randomised trial data directly referencing these specific adhyayas limits the evidence grade of several correlations presented.^[14] Future primary research designs targeting the pharmacological and nutritional hypotheses generated by these adhyayas are required to advance this field from critical review to empirical validation.^[15,16]

V. CONCLUSION

The *Dravadravya Vijnaniya Adhyaya* and *Annaswaroopa Vijnaniya Adhyaya* of *Charaka Samhita* constitute two interdependent pillars of classical Ayurvedic pharmacognostic and nutritional science whose conceptual sophistication warrants sustained doctoral-level scholarly attention.^[1,2] This structured critical review has demonstrated that the *Rasa Panchaka* framework of Chapter 1 exhibits robust conceptual convergence with contemporary pharmacodynamic classification, pharmacokinetic science, and molecular pharmacology, while the *Ahara Varga* system of Chapter 27 constitutes a proto-precision nutrition paradigm that aligns with the emerging evidence base in nutrigenomics, functional food research, and personalised dietotherapy.^[5,6,11,19]

The epistemological continuum from *Dravya* to *Ahara* that both adhyayas collectively represent reflects an integrated biomedical worldview that transcends the modern categorical separation between pharmacology and nutrition — a separation that contemporary nutraceutical science and functional food medicine are progressively dissolving.^[12,13] Both adhyayas, rigorously reviewed and systematically correlated with contemporary science, represent not archival curiosities but living conceptual frameworks of demonstrable translational value for pharmacopoeia development, clinical dietotherapy protocol design, integrative medicine curricula, and evidence-based Ayurvedic research programmes.^[7,16]

Future investigative priorities should include: metabolomic validation of *Vipaka* and *Virya* parameters; randomised clinical trials of *Pathya-Apathya* frameworks in metabolic and inflammatory disease; network pharmacology studies linking *Rasa Panchaka* descriptors to polypharmacological molecular targets; and systematic integration of *Ahara Varga* data with modern food metabolomics databases for evidence-based precision nutrition development.^[15,16,20,25] The scholarly rigour embedded in both adhyayas demands — and amply rewards — the level of critical engagement that this review has sought to model.^[13]

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