



Yatha Dravya Tatha Guna": Philosophical Basis and Contemporary Relevance of Drug Substitution (Abhav Pratinidhi Dravya) in Ayurveda and Modern Medicine

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Abstract- The Ayurvedic principle "Yatha Dravya Tatha Guna" emphasizes that the therapeutic efficacy of a substance is determined by its intrinsic qualities (Guna) and actions (Karma) rather than its external form or nomenclature. In the present era, increasing scarcity of medicinal plants due to overexploitation, habitat destruction, and environmental changes poses significant challenges to the continuity of traditional therapeutic practices. Within this context, the Ayurvedic concept of Abhav Pratinidhi Dravya, or substitute drugs, provides a systematic and rational framework to ensure uninterrupted treatment while preserving therapeutic integrity. The objective of this study is to critically analyze the philosophical foundation of drug substitution in Ayurveda and to examine its conceptual compatibility with modern pharmacological principles. The study is based on a comprehensive review of classical Ayurvedic literature, including authoritative texts such as Bhavaprakasha, Yogaratnakara, and Bhaishajya Ratnavali. The criteria for substitution were examined through the lens of Rasapanchaka, encompassing Rasa, Guna, Virya, Vipaka, and Prabhava, along with their clinical relevance and therapeutic outcomes. In addition, modern scientific perspectives were incorporated by considering parameters such as phytochemical similarity and pharmacological validation using analytical techniques like TLC, HPLC and HPTLC. The findings indicate that classical Ayurvedic substitution primarily depends on the similarity of Karma and Rasapanchaka rather than botanical identity. Several traditional substitutions demonstrate remarkable therapeutic equivalence, such as the use of Shatavari as a substitute for Meda owing to comparable Rasayana properties, and Cyperus rotundus as an accessible alternative to Aconitum heterophyllum. Contemporary pharmacological evaluation supports these substitutions through the identification of comparable bioactive compounds, reinforcing the scientific plausibility of traditional practices. In conclusion, the concept of Abhav Pratinidhi Dravya plays a crucial role in ensuring therapeutic reliability, patient safety, and ecological sustainability. The integration of Ayurvedic principles with modern pharmacological validation highlights the relevance of substitution as a rational, evidence-informed approach to addressing the global scarcity of genuine medicinal resources. This convergence of ancient wisdom and modern science offers a sustainable pathway for the continued application of Ayurvedic therapeutics in contemporary healthcare.



Keywords- Abhav Pratinidhi Dravya, Rasapanchaka, Drug Substitution, Phytochemical Equivalence, Ayurveda, Sustainability.

I. Introduction

Ayurveda, the ancient Indian system of medicine, is founded on a rational and principle-oriented understanding of substances (Dravya) and their therapeutic actions. One of its fundamental doctrines, “Yatha Dravya Tatha Guna”, states that every substance expresses its identity and therapeutic efficacy through its inherent qualities (Guna) and actions (Karma), rather than through its external form, name, or origin. This principle forms the philosophical backbone of Ayurvedic pharmacology and provides a flexible yet scientifically grounded framework for clinical practice.

In contemporary times, the availability of genuine medicinal plants has become increasingly challenging due to over-harvesting, habitat destruction, climate change, geographical restrictions, seasonal limitations, and growing commercial demand. Several classical drugs are now rare, endangered, region-specific, or economically inaccessible. In addition, issues such as controversial botanical identity, multiple regional synonyms, adulteration, toxicity, and difficulties in purification (Shodhana) further complicate their clinical use. These challenges necessitate a rational alternative approach that preserves therapeutic efficacy without compromising patient safety.

To address such situations, Ayurveda has systematically conceptualized the doctrine of Abhava Pratinidhi Dravya, meaning the use of substitute drugs in the absence (Abhava) of the original substance. Classical Ayurvedic compendia such as Bhavaprakasha, Yogaratnakara, and Bhaishajya Ratnavali extensively document substitute drugs selected on the basis of similarity in Rasapanchaka—Rasa (taste), Guna (qualities), Virya (potency), Vipaka (post-digestive effect), and Prabhava (specific action)—with particular emphasis on therapeutic action (Karma). This demonstrates that substitution in Ayurveda is not arbitrary, but a deliberate and principle-driven process rooted in pharmacodynamic equivalence.

Importantly, Ayurvedic substitution does not rely solely on botanical similarity but prioritizes functional and therapeutic equivalence. In many instances, drugs belonging to different botanical families are considered valid substitutes if they exhibit comparable pharmacological actions and clinical outcomes. This approach highlights Ayurveda's advanced understanding of drug action and its emphasis on clinical effectiveness over morphological identity.

Interestingly, a comparable concept exists in modern pharmacology, where drug substitution is guided by similarity in chemical constituents, pharmacodynamics, pharmacokinetics, safety profile, and therapeutic indication. Modern analytical techniques such as Thin Layer chromatography (TLC), High-Performance Thin-Layer Chromatography (HPTLC), High-Performance Liquid Chromatography (HPLC), spectroscopic analysis, and pharmacological assays have further validated the equivalence of several classical Ayurvedic substitutes by demonstrating similarities in



active phytochemical markers. Thus, the Ayurvedic doctrine of Abhava Pratinidhi Dravya aligns closely with contemporary evidence-based approaches to drug substitution.

Therefore, understanding Abhava Pratinidhi Dravya through the lens of Yatha Dravya Tatha Guna is crucial not only for ensuring therapeutic continuity and patient safety, but also for promoting ecological sustainability and responsible utilization of medicinal resources. The present article aims to explore the philosophical foundation of drug substitution in Ayurveda and critically examine its relevance and validation in the context of modern medical science.

Criteria for Selection of Abhav Pratinidhi Dravya in Ayurveda

The selection of Abhav Pratinidhi Dravya in Ayurveda is governed by classical pharmacological principles aimed at preserving therapeutic efficacy, safety, and clinical utility. Substitution is performed only after systematic evaluation of qualitative and functional similarity with the original drug.

1. Similarity in Rasapanchaka

The foremost criterion for substitution is similarity in Rasapanchaka, including Rasa, Guna, Virya, Vipaka, and Prabhava. These attributes collectively determine the pharmacological action of a drug on Dosha, Dhatu, and Agni. Classical texts such as Bhavaprakasha and Yogaratnakara emphasize that drugs with comparable Rasapanchaka may be used as substitutes irrespective of botanical differences. Thus, functional similarity is prioritized over morphological identity. For example, Aerva lanata is accepted as a substitute for Bergenia ligulata due to similarity in Rasa and Karma, particularly in Ashmari.

2. Priority to Karma (Therapeutic Action)

Among the components of Rasapanchaka, Karma is given supreme importance. Ayurveda considers reproduction of the same therapeutic outcome as the primary objective of substitution. Texts such as Bhaishajya Ratnavali support the use of substitute drugs when similar pharmacological behavior ensures identical clinical results, highlighting the pragmatic and patient-oriented nature of Ayurvedic therapeutics.

3. Safety and Reduced Toxicity

Safety is an essential criterion in selecting a Pratinidhi Dravya. Certain classical drugs are highly potent, toxic, or require complex Shodhana procedures, limiting their routine use. In such cases, Ayurveda recommends safer alternatives with comparable therapeutic actions. For instance, potent drugs like Bhallataka may be substituted with relatively safer drugs such as Chitraka when clinically appropriate, thereby minimizing adverse effects.

4. Botanical Proximity

Botanical proximity, such as belonging to the same genus or family, serves as a supportive criterion for substitution. Plants within the same taxonomic group often share similar phytochemical constituents and pharmacological actions. Classical and



modern Ayurvedic literature records several such substitutions, a concept that aligns with chemotaxonomic principles of modern pharmacognosy.

5. Availability, Affordability, and Sustainability

Availability and accessibility significantly influence drug substitution. When an original drug is rare, costly, or geographically restricted, a readily available and economical alternative is preferred, as acknowledged in texts like Yogaratnakara. In the present era, such substitution also aids in the conservation of endangered medicinal plants and supports sustainable use of natural resources.

Thus, the concept of Abhav Pratinidhi Dravya reflects a rational integration of therapeutic equivalence, safety, practicality, and sustainability. By emphasizing functional efficacy over botanical identity, Ayurveda demonstrates a flexible yet scientifically sound approach to drug substitution.

II. Reasons for Adopting Abhav Pratinidhi Dravya

The concept of Abhav Pratinidhi Dravya in Ayurveda emerged from practical challenges encountered in drug availability and clinical application. Classical texts recognize that many medicinal substances described in the Samhitas may become rare, seasonally unavailable, geographically restricted, or even endangered due to overexploitation. In such circumstances, substitution is recommended to ensure continuity of treatment without compromising therapeutic efficacy.

Another important reason for substitution is the uncertainty or controversy surrounding the identity of certain drugs. Multiple synonyms, regional variations, and ambiguous classical descriptions may lead to adulteration or misuse. To avoid therapeutic inconsistency and ensure patient safety, Ayurveda advises the use of well-established substitutes possessing similar pharmacological actions.

Toxicity and safety concerns also justify the adoption of substitute drugs. Certain potent medicines require complex purification (Shodhana) procedures and careful dosage regulation. When these drugs pose a risk of adverse effects or are unsuitable for specific patients, safer alternatives with comparable therapeutic action are preferred. This reflects Ayurveda's emphasis on rational, individualized, and safe treatment.

Economic constraints and limited supply further necessitate substitution. Some drugs are expensive or difficult to procure in sufficient quantity, making them inaccessible for routine use. Classical literature supports the use of affordable and easily available substitutes that maintain therapeutic reliability⁵. Additionally, substitution plays a vital role in conserving endangered medicinal plants, thereby supporting ecological sustainability and responsible utilization of natural resources⁶.

Thus, Abhav Pratinidhi Dravya represents a rational response to clinical, economic, and environmental challenges, ensuring effective, safe, and sustainable Ayurvedic practice.



Table 1: Types of Abhav Pratinidhi Dravya (Drug Substitution in Ayurveda)

Sr. No.	Type of Substitution	Basis of Substitution	Explanation
1.	Substitution within the same genus or species	Botanical similarity	When the original drug is unavailable, another species of the same genus is used due to close similarity in pharmacological and therapeutic properties.
2.	Substitution within the same botanical family	Phytochemical and pharmacological resemblance	Plants belonging to the same family often share similar chemical constituents and therapeutic actions, allowing substitution when Rasapanchaka and Karma are comparable.
3.	Rasapanchaka- and Karma-based substitution	Functional and qualitative equivalence	Drugs with similar Rasa, Guna, Virya, Vipaka, and Prabhava are used as substitutes regardless of botanical differences, ensuring similar therapeutic outcomes.
4.	Safety-based substitution	Reduced toxicity	When the original drug is potent, toxic, or difficult to purify (Shodhana), a safer alternative with similar therapeutic action is preferred.
5.	Availability- and affordability-based substitution	Practical feasibility	Easily available and cost-effective drugs are used when the original drug is rare, expensive, or geographically restricted.
6.	Conservation- and sustainability-based substitution	Ecological protection	Substitution is adopted to reduce overexploitation of endangered or slow-growing medicinal plants while maintaining therapeutic efficacy.

III. Modern Perspectives of Substitution (Abhav Pratinidhi Dravya)

1. Phytochemical Equivalence

In modern science, substitution is justified through comparison of active phytochemical constituents responsible for therapeutic action. Even botanically different plants may exhibit similar pharmacological effects due to the presence of comparable bioactive compounds.

For example, Chitraka (*Plumbago zeylanica*) is used as a substitute for Bhallataka (*Semecarpus anacardium*) because both contain potent acrid compounds—plumbagin and Anacardiac acide respectively—producing similar stimulant and metabolic-enhancing actions. This supports substitution at a molecular level.



2. Pharmacological Equivalence

Substitution is also based on similarity in therapeutic action, irrespective of chemical identity. Drugs exhibiting comparable pharmacodynamic effects can be used interchangeably to achieve the same clinical outcome.

Guduchi (*Tinospora cordifolia*) is employed as a substitute for Parnabeeja in Rasayana therapy due to its well-documented immunomodulatory, adaptogenic, and rejuvenative properties, which align with the intended therapeutic effect.

3. Safety and Toxicological Considerations

When classical drugs are toxic or difficult to use safely, substitution becomes necessary to prevent adverse effects.

Vatsanabha (*Aconitum ferox*), known for its high toxicity, is substituted with Trikatu (Shunthi, Maricha, Pippali), which provides similar Deepana, Pachana, and Vata-balancing effects without toxic risk. This reflects the modern emphasis on patient safety.

4. Availability and Conservation

Substitution supports sustainable utilization of medicinal plants and helps protect endangered species.

Rauwolfia tetraphylla is used in place of the endangered *Rauwolfia serpentina*, as both possess comparable antihypertensive properties, ensuring therapeutic continuity while promoting conservation.

5. Evidence-Based Validation

Modern analytical techniques such as TLC, HPTLC, HPLC, spectroscopy, DNA barcoding, and pharmacological assays are used to validate substitution scientifically. These methods confirm chemical similarity, identity, safety, and efficacy, strengthening the credibility of Abhav Pratinidhi Dravya in contemporary practice.

Table number-2 Substitute Drugs mention in Bhavprakash

Sr.no.	Drugs	Substitute Drugs	Reason for Substitution
1.	Meda (<i>Polygonatum verticillatum</i>)	Shatavari (<i>Asparagus racemosus</i>)	Similar Balya, Rasayana, Stanyajanan Properties. Madhur Rasa and Vipak.
2.	Mahameda (<i>Polygonatum cirrhifolium</i>)	Shatavari (<i>Asparagus racemosus</i>)	Similar Stanyajana, Balya, Rasayana Properties.
3.	Jivak (<i>Microstylis wallichii</i>)	Vidarikand(<i>Pueraria tuberosa</i>)	Both are vata pitta hara Rasayana, Balya. Brimhaniya Properties.
4.	Rishbhak (<i>Melaxis acuminate</i>)	Vidarikand(<i>Pueraria tuberosa</i>)	Similar Aphrodisiac Property
5.	Kakoli (<i>Roscoea procera</i>)	Ashwagandh(<i>Withania somnifera</i>)	Similar rejuvenative Vitality properties.
6.	Kshirkakoli	Ashwagandh(<i>Withania somnifera</i>)	Similar Adaptogenic Strengthpromoting Properties.



	(Paris polyphylla)	somnifera)	
7.	Ridhi (Hobernaria intermedia)	Varahikand (Dioscorea bulbifera)	Similar nourishing Aphrodisiac Properties.
8.	Vridddhi (Hobernaria acuminata)	Varahikand (Dioscorea bulbifera)	Similar Strength Promoting and Rejuvenative Properties.

Table number-3 Substitute Drugs mention in Bhaishajya Ratnavali

Sr. No.	Original Drug	Substitute Drug	Reason for Substitution
1	Pushkarmool (Inula racemosa)	Kushta (Saussurea lappa)	Both belong to Asteraceae family; used in cardiac and respiratory disorders; similar pharmacological activity.
2	Amlavetas (Hippophae salicifolia)	Chukra (Rumex vesicarius)	Both are Pitta-Kapha hara, Amla rasa, improve digestion and appetite.
3	Kumkum (Crocus sativus)	Kusumbha (Schleichera oleosa)	Both are red in color, mildly fragrant; used in rituals and cosmetic preparations.
4	Kasturi (Moschus moschiferus)	Nagarmotha (Cyperus rotundus)	Both possess Katu rasa, Katu vipaka; used in digestive and calming formulations.
5	Kasturi (Moschus moschiferus)	Kankol (Piper cubeba)	Both have Katu rasa, Deepana-Pachana action, useful in digestion.
6	Kasturi (Moschus moschiferus)	Gandhashati (Hedychium spicatum)	Similar cooling and calming properties; useful in nervous disorders.
7	Ativisha (Aconitum heterophyllum)	Nagarmotha (Cyperus rotundus)	Both have Tikta rasa, anti-diarrheal action; Nagarmotha is easily available.
8	Prishniparni (Uraria picta)	Shalparni (Desmodium gangeticum)	Both have Madhura-Tikta rasa, Ushna veerya, Vata-Pitta hara, Balya, Rasayana, Shothahara properties.
9	Swetachandan (Santalum album)	Raktachandan (Pterocarpus santalinus)	Both are Tikta rasa, Sheet veerya, Pitta hara, Kushthaghna, Shothahara.
10	Swetachandan (Santalum album)	Karpura (Cinnamomum camphora)	Both are Pitta-Kapha hara, Sheet veerya, Dahashamana, useful in skin disorders.
11	Chitraka (Plumbago zeylanica)	Danti (Baliospermum montanum)	Both are strong Deepana-Pachana drugs with Ushna veerya.
12	Rasna (Pluchea	Bandak (Dendrophthoe	Both are Kapha-Vata hara, Ushna



	(lanceolata)	(falcata)	veerya, Shothahara, Vedanahara.
13	Nagkeshar (Mesua ferrea)	Kamalkeshar (Nelumbo nucifera)	Both have Kashaya rasa, Sheet veerya, Pitta shamana, Stambhana action.
14	Javitri (Myristica fragrans)	Lavang (Syzygium aromaticum)	Both are Kapha-Vata hara, Katu-Tikta rasa, Deepana-Pachana.
15	Draksha (Vitis vinifera)	Gambhari (Gmelina arborea)	Both have Madhura rasa, Pittashamaka, Balya effect.
16	Tagarmool (Valeriana wallichii)	Singhalimool (Nardostachys jatamansi)	Both are Vata-Kapha hara, Ushna veerya, Tikta rasa, Vedanahara, Vatahara.
17	Ajmoda (Carum roxburghianum)	Ajwain (Trachyspermum ammi)	Similar aroma; Deepana, digestive action.
18	Murva (Marsdenia tenacissima)	Manjistha (Rubia cordifolia)	Both possess Tikta rasa and Rakta-shodhana (blood-purifying) action.
19	Talamakhana (Asteracantha longifolia)	Gokshura (Tribulus terrestris)	Both have Sheet veerya, balance Vata-Pitta, Mutrala, Vrishya, Shukra-vardhaka properties.
20	Jiraka (Cuminum cyminum)	Dhaniya (Coriandrum sativum)	Both are Deepana-Pachana, Pitta hara.
21	Dhaniya (Coriandrum sativum)	Saunf (Foeniculum vulgare)	Both are Deepana, Pachana, Sheet, Agnideepaka.

Table number -4 Substitute Drugs P.V. Sharma in Dravyaguna Vijnana volume 5

Sr.no	Drug	Substitute Drugs	Reason for Substitution
1.	Pashanbheda (Berginia ligulata)	Gorakshaganja (Aerva lanata)	Both help break kidney Stones. Gorakshaganja is easily Available.
2.	Sthauneyaka (Taxus baccata)	Talisha (Abies webbiana)	Both used in respiratory Disease.(cold,cough) also, Talisha easily available.
3.	Kutaja (Holarrhena Antidysentrica)	Strikutaja (Wrightia tinctoria)	Both used in diarrhea, Dysentery,worms. Both help kapha-pitta Balance.(due to it's tikta Kashay rasa) and sheeta Virya.
4.	Amlavetasa (Hippophae Salcifolia)	Revandchini (Rheum emodi)	Both are used in deepan Pachana.
5.	Mulethi (Glycyrrhiza glabra)	Shatavari (Asparagus racemosus)	Both are Madhur rasa, Sheet virya,



			Used for Rasayana, Ulcers.
6.	Kutaki (Picrorrhiza kurroa)	Trayamana (Gentiana kurroa)	Both are Tikta rasa Sheeta Virya, reduce Pitta. Trayamana is easily Available.
7.	Ativisha (Aconitum heterophyllum)	Prativisha (Aconitum palmatum)	Both are deepana, Pachana Jwaraghna, Tkita rasa,sheetta Virya.both are Used in children Problem.
8.	Rasna (Pluchea Lanceolata)	Mahabharivacha (Alpinia galangal)	Similar Anti- inflammatory Analgesic, vata-pacifying Properties, especially Injoints and nerve Disorder
9.	Arjuna (Terminalia arjuna)	Kakubha (Terminalia myriocarpa)	Similar cardiotonic, Wound healing Properties.
10	Priyangu (Callicarpa macrophylla)	Aglaia roxburghii	Similar fragrans and Cooling effect. Both are used in pitta And skin Disorder.
11.	Nagkeshar (Mesua ferrea)	Surpunaga / Rakta Nagkeshar (Mammea longifolia)	Both are pitta shaman Raktashodhak, Liver Protective Properties Kashaya rasa.sheetta Veery

Table no 5. Substitute drug in Minerals and Metals

Sr.no.	Minerals and Metals	Substitute drug	Reason for substitution
1.	Vajra	Vaikran	Both Balance Dosha Increased immunity Rasayana Properties Vaikrant is affordable, Safer,more accessible.
2.	Parad Bhasma	Rasa Sindur	Both having Rasayana, Disease - healing benefits Rasa sindur is safer Detoxified and more Stable form
3.	Suvarnamakshik Satva	Suvarna Bhasma	Both are Rasayana, Immunity, Nervine tonic Properties. Suvarna Bhasma is easily Absorb.
4.	Abhrak Satva	Kanta Louha	Similar rejuvenative and Hemanthinic effects. Kanta Louha is easily Available and processing.
5.	Moti	Mukta Shukti	Similar Calcium rich, Cooling, cardiotonic Effect.pitta shamak Mukta Shukti is Widely available, cost Effective,



IV. Discussion

The present study highlights the scientific and philosophical foundation of Abhav Pratinidhi Dravya, rooted in the Ayurvedic principle "Yatha Dravya Tatha Guna." This doctrine emphasizes that therapeutic efficacy depends on a drug's inherent qualities and actions rather than its botanical identity. Classical Ayurvedic texts clearly establish that substitution is a rational, principle-based process guided primarily by similarity in Karma and Rasapanchaka, ensuring preservation of therapeutic outcomes.

Among the criteria for substitution, therapeutic action (Karma) holds paramount importance, reflecting Ayurveda's outcome-oriented approach. Safety considerations further strengthen the relevance of substitution, as safer alternatives are recommended when original drugs are toxic, highly potent, or require complex purification. This aligns closely with modern principles of patient safety and rational drug use. Additionally, factors such as availability, affordability, and conservation play a crucial role in the adoption of substitute drugs. By promoting easily accessible alternatives, Ayurveda ensures continuity of treatment while supporting ecological sustainability. Modern pharmacological validation through phytochemical and pharmacodynamic equivalence further supports classical substitutions, demonstrating a strong convergence between traditional Ayurvedic logic and contemporary scientific evidence.

V. Conclusion

The concept of Abhav Pratinidhi Dravya represents a rational, flexible, and scientifically sound approach to drug substitution in Ayurveda. Rooted in the fundamental principle of "Yatha Dravya Tatha Guna," it emphasizes that therapeutic efficacy is governed by a drug's inherent qualities and actions rather than its mere botanical identity. This principle allows Ayurveda to adapt effectively to practical challenges such as non-availability, scarcity, toxicity, high cost, and regional limitations of classical drugs. By prioritizing similarity in Karma and Rasapanchaka, the use of Pratinidhi Dravya ensures continuity of treatment while maintaining safety and therapeutic reliability. Moreover, this approach supports ecological sustainability by reducing pressure on endangered medicinal plants and promoting responsible use of natural resources. The convergence of classical textual wisdom with modern scientific validation further strengthens the credibility and contemporary relevance of this concept. Thus, Abhav Pratinidhi Dravya stands as an evidence-informed and pragmatic strategy that preserves the integrity of Ayurvedic therapeutics while addressing clinical, environmental, and societal needs, ensuring the sustainable practice of Ayurveda in present and future healthcare systems.

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