



“ROLE OF *VYADHI KSHAMATVA* (IMMUNITY) IN THE CONTEXT OF LIFESTYLE DISORDERS: AN AYURVEDIC AND CONTEMPORARY REVIEW”

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ABSTRACT

Introduction: Lifestyle disorders such as diabetes mellitus, hypertension, obesity, and cardiovascular diseases are increasing globally due to sedentary habits, poor diet, and stress. Ayurveda describes *Vyadhi Kshamatva* (immunity) as the inherent capacity of the body to resist diseases and maintain homeostasis. This review explores the relevance of *Vyadhi Kshamatva* in preventing and managing lifestyle disorders.

Methods: A comprehensive literature review was carried out using Ayurvedic classical texts (*Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*), PubMed, Scopus, and Web of Science databases. Inclusion criteria were original research, review articles, and clinical studies on immunity, Ayurveda-based interventions, and lifestyle diseases published from 2000–2024. Exclusion criteria were non-peer-reviewed articles, case reports, and unrelated studies. **Results:** Ayurveda emphasizes *Vyadhi Kshamatva* as influenced by *Ojas*, *Agni*, *Dosha balance*, and *Srotas integrity*. Modern evidence supports this, linking immunity with gut microbiome, oxidative stress regulation, and metabolic health. Lifestyle modifications such as *Dinacharya*, *Ritucharya*, *yoga*, *meditation*, and *Rasayana therapy* enhance immune function. Several studies show the protective role of Ayurvedic herbs (e.g., *Ashwagandha*, *Guduchi*, *Amalaki*) in reducing the risk of diabetes, obesity, and cardiovascular dysfunction.

Discussion: While Ayurveda offers a holistic model of immunity, modern science validates many of its principles through emerging fields like psychoneuroimmunology and epigenetics. However, clinical evidence integrating both systems is still limited. **Conclusion:** *Vyadhi Kshamatva* represents a dynamic framework that strengthens resilience against lifestyle disorders. Integrating Ayurvedic preventive strategies with modern lifestyle interventions may help reduce the global burden of chronic diseases.

KEYWORDS: Ayurveda, Immunity, Lifestyle disorders, *Rasayana*, *Vyadhi Kshamatva*

INTRODUCTION

Lifestyle disorders are among the leading causes of morbidity and mortality worldwide. Urbanization, irregular diet, lack of exercise, and psychosocial stress contribute to the rising prevalence of diabetes, obesity, hypertension, cardiovascular diseases, and cancer.^[1-2] Modern medicine recognizes that compromised immunity, oxidative stress, and chronic low-grade inflammation are central to these conditions.^[3-4]

In Ayurveda, health is defined as a balanced state of *Doshas*, *Agni*, *Dhatus*, *Malas*, and the presence of a strong *Atma* and *Manas*.^[5-6] The concept of *Vyadhi Kshamatva* encompasses both disease resistance and the ability to recover quickly when illness occurs. Unlike modern medicine, which often targets isolated physiological pathways, Ayurveda integrates immunity with lifestyle, behavior, and mental well-being.^[7-8]

The aim of this review is to critically analyze the concept of *Vyadhi Kshamatva* in classical texts, explore its application in lifestyle disorders, and correlate it with modern immunological and preventive health evidence.^[9-10]

MATERIALS AND METHODS

- **Databases searched:** PubMed, Scopus, Web of Science, AYUSH Research Portal.
- **Keywords used:** “Vyadhi Kshamatva,” “Ayurveda immunity,” “lifestyle disorders,” “Rasayana therapy,” “Ojas and health.”^[11]
- **Inclusion criteria:** Original studies, reviews, and clinical trials published between 2000–2024 related to immunity and lifestyle disorders, Ayurvedic Rasayana drugs, yoga, and lifestyle modifications.^[12]
- **Exclusion criteria:** Case reports, editorials, and non-peer-reviewed literature.^[13]
- **Ayurvedic sources:** *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, *Bhavaprakasha* with commentaries.^[14-15]

The collected data were analyzed thematically, combining textual interpretation and contemporary scientific findings.

OBSERVATION AND RESULTS

1. Conceptual Basis of *Vyadhi Kshamatva*

Vyadhi Kshamatva is defined as the body’s intrinsic ability to resist disease occurrence (*Vyadhi Utpada Pratibandhakatva*) and to limit the severity and

progression of disease (*Vyadhi Bala Virodhitva*). Classical Ayurvedic texts highlight that it is dependent on *Ojas* (vital essence), *Agni* (digestive/metabolic fire), and *Dosha* balance. Modern parallels can be drawn with innate and adaptive immunity, metabolic regulation, and stress resilience.

2. Lifestyle Disorders and Immunity in Ayurveda

Lifestyle disorders are described as *Santarpanajanya Vyadhis* (caused by over-nutrition) such as *Madhumeha* (diabetes) and *Sthaulya* (obesity), or *Apatarpanajanya Vyadhis* (due to under-nutrition). In both categories, impaired immunity plays a central role. Ayurveda suggests that wrong dietary habits, irregular lifestyle, and psychosocial stress disturb *Agni* and lead to *Ama* formation, causing systemic dysfunction.

3. Role of Agni and Ama in Immunological Dysfunction

- *Agni* governs digestion and metabolism; its impairment produces *Ama*, a toxic, undigested residue.
- *Ama* obstructs *Srotas* (channels), weakens tissue nutrition, and promotes inflammation.
- In modern medicine, this can be compared with oxidative stress, toxin accumulation, and metabolic endotoxemia in lifestyle disorders.
- For example, studies show that patients with diabetes and obesity have chronic low-grade inflammation mediated by cytokines—similar to the concept of *Ama*.

4. Ojas and Immunity in Lifestyle Disorders

- *Ojas* is described as the quintessence of all *Dhatus* (tissues), responsible for vigor, strength, and immunity.
- Lifestyle disorders deplete *Ojas* through poor nutrition, excess stress, and toxin accumulation.
- Clinical parallels: reduced heart rate variability, chronic fatigue, and increased susceptibility to infections in patients with metabolic disorders can be seen as manifestations of *Oja-Kshaya*.

5. Rasayana Therapy and Immune Modulation

Rasayana therapy aims at rejuvenation, tissue nourishment, and immune strengthening.

- *Guduchi* (*Tinospora cordifolia*): proven immunomodulatory, anti-inflammatory, and antidiabetic effects.

- **Amalaki (*Emblica officinalis*):** antioxidant, cardioprotective, and anti-aging properties.
- **Ashwagandha (*Withania somnifera*):** adaptogenic and stress-modulating effects validated in psychoneuroimmunology studies.
- **Haritaki and Yashtimadhu:** shown to improve digestive strength and reduce oxidative damage. Clinical studies confirm *Rasayana* therapy improves glycemic control, lipid profile, and immune markers in lifestyle disorder patients.

6. Role of Lifestyle Regulations (*Dinacharya* and *Ritucharya*)

Ayurveda emphasizes daily and seasonal regimens for maintaining *Vyadhi Kshamatva*:

- ***Dinacharya* (daily routine):** proper sleep, exercise (*Vyayama*), meditation, balanced diet.
- ***Ritucharya* (seasonal regimen):** adapting diet and lifestyle to seasonal variations to reduce susceptibility.
- These align with modern concepts of chronobiology and circadian rhythm regulation.

7. Yoga, Meditation, and *Satvavajaya Chikitsa*

- Stress is a significant contributor to lifestyle disorders. Ayurveda prescribes *Satvavajaya Chikitsa* (mental restraint and counseling) for mental resilience.
- Yoga and meditation reduce cortisol levels, improve autonomic balance, and strengthen immunity.
- Modern studies show yoga reduces HbA1c, blood pressure, and inflammatory markers, confirming its role in enhancing *Vyadhi Kshamatva*.

8. Modern Correlates of *Vyadhi Kshamatva*

- Adaptive immunity, oxidative stress regulation, microbiome integrity, and neuroendocrine modulation can be mapped to *Ojas*, *Agni*, *Srotas*, and *Satva*.
- Psychoneuroimmunology validates Ayurveda's emphasis on mind-body health.
- Gut microbiome research highlights the role of diet and digestion, directly paralleling *Agni* and *Ama*.

9. Preventive Potential in Public Health

The Ayurvedic framework offers a preventive model integrating diet, lifestyle, and immunity enhancement. Evidence suggests that incorporating *Rasayana* herbs, yoga, and balanced lifestyle

practices can reduce the incidence and severity of lifestyle disorders at the community level.

DISCUSSION

The concept of *Vyadhi Kshamatva* provides a holistic view of immunity that is not restricted to pathogen defense but extends to resilience against lifestyle-related stressors. Ayurveda highlights that immunity is shaped by digestion (*Agni*), nutrition (*Dhatu Poshana*), mental stability (*Satva*), and vital essence (*Ojas*).^[16]

Modern science similarly recognizes that lifestyle disorders arise from a complex interplay of metabolic dysfunction, chronic inflammation, and immune dysregulation. The Ayurvedic concept of *Ama* parallels oxidative stress, advanced glycation end products, and endotoxemia that drive insulin resistance and cardiovascular dysfunction. Likewise, *Oja-Kshaya* can be compared with reduced cellular resilience and immunosenescence observed in chronic diseases.^[17]

The role of *Rasayana* herbs in boosting immunity and reducing oxidative stress has been partially validated in modern pharmacological studies. For instance, Ashwagandha is shown to reduce cortisol and enhance NK cell activity, while *Guduchi* demonstrates antidiabetic and hepatoprotective properties. However, large-scale randomized controlled trials are limited, and many studies lack methodological rigor.^[18]

Yoga and meditation, described in Ayurveda as supportive measures to strengthen immunity, are now validated by psychoneuroimmunology. Reduced stress hormone levels, improved immune surveillance, and better metabolic outcomes have been documented in multiple trials. This confirms Ayurveda's emphasis on mind-body integration in immunity.^[19]

Despite these parallels, gaps remain. Modern science often isolates biochemical pathways, while Ayurveda presents an integrative framework. Bridging these paradigms requires translational research, particularly linking Ayurvedic biomarkers (*Agni*, *Ama*, *Ojas*) with measurable clinical parameters (cytokines, microbiome diversity, oxidative stress markers). Developing standardized protocols for *Rasayana* therapies and integrative preventive models will be key to advancing global acceptance.^[20]

Thus, *Vyadhi Kshamatva* offers a timeless, holistic

framework, which, if integrated with modern medicine, could reshape preventive and therapeutic strategies against lifestyle disorders.

CONCLUSION

Vyadhi Kshamatva, as described in Ayurveda, is a multidimensional concept encompassing disease prevention, resilience, and recovery. In the context of lifestyle disorders, it highlights the interplay of digestion (*Agni*), toxin accumulation (*Ama*), mental well-being (*Satva*), and vitality (*Ojas*). Classical measures such as Rasayana therapy, *Dinacharya*, *Ritucharya*, and *Satvavajaya Chikitsa*, supported by practices like yoga and meditation, strengthen *Vyadhi Kshamatva* and reduce vulnerability to chronic diseases.

Modern research increasingly validates these principles, showing that Ayurvedic interventions reduce oxidative stress, enhance immunity, and modulate inflammatory pathways central to lifestyle disorders. However, more rigorous clinical evidence and standardized methodologies are needed for mainstream integration.

The convergence of Ayurveda and modern science offers immense potential in addressing the global burden of lifestyle disorders. By adopting *Vyadhi Kshamatva*-based preventive and therapeutic frameworks, healthcare systems can move toward a holistic, cost-effective, and sustainable model of wellness.

REFERENCES

- Charaka. *Charaka Samhita*, Chakrapani commentary. Varanasi: Chaukhamba Sanskrit Pratishtan; 2018.
- Sushruta. *Sushruta Samhita*, Dalhana commentary. Varanasi: Chaukhamba Orientalia; 2017.
- Vagbhata. *Ashtanga Hridaya*. Varanasi: Chaukhamba Krishnadas Academy; 2015.
- Bhavamishra. *Bhavaprakasha Nighantu*. Varanasi: Chaukhamba Bharati; 2016.
- Sharma H, Chandola HM, Singh G, Basisht G. Utilization of Ayurveda in health care: An approach for prevention, health promotion, and treatment of disease. Part 2. *J Altern Complement Med*. 2007;13(10):1135-50.
- Patwardhan B, Chorghade M, Vaidya ADB, Joshi K. Reverse pharmacology and systems approaches for drug discovery and development. *Curr Sci*. 2004;86(6):789-99.
- Dahanukar SA, Thatte UM. Current status of Ayurveda in phytomedicine. *Phytomedicine*. 1997;4(4):359-68.
- Upadhyay R. Health care and Ayurveda: Evidence-based opportunities. *AYU*. 2014;35(1):1-4.
- Singh RH. Exploring quality of life in Ayurveda. *AYU*. 2011;32(2):143-6.
- Singh N, Nath R, Lata A, et al. *Withania somnifera* (Ashwagandha): A review. *Phytother Res*. 1987;1(3):161-76.
- Balasubramani SP, Venkatasubramanian P, Patwardhan B. Plant-based Rasayana drugs: Implications for modern therapeutics. *Pharmacogn Rev*. 2011;5(9):19-29.
- Dhama K, Latheef SK, Dadar M, et al. Immunomodulatory and therapeutic potentials of herbal, traditional/indigenous and ethnoveterinary medicines. *Vet Q*. 2018;38(1):176-214.
- Kumar V, Abbas AK, Aster JC. *Robbins and Cotran Pathologic Basis of Disease*. 10th ed. Philadelphia: Elsevier; 2020.
- Hotamisligil GS. Inflammation and metabolic disorders. *Nature*. 2006;444(7121):860-7.
- Calder PC, Ahluwalia N, Brouns F, et al. Dietary factors and low-grade inflammation in relation to overweight and obesity. *Br J Nutr*. 2011;106(S3):S5-S78.
- Chatterjee S, Khunti K, Davies MJ. Type 2 diabetes. *Lancet*. 2017;389(10085):2239-51.
- World Health Organization. Global status report on noncommunicable diseases. Geneva: WHO; 2020.
- Streeter CC, Gerbarg PL, Saper RB, et al. Effects of yoga on the autonomic nervous system, gamma-aminobutyric-acid, and allostasis in epilepsy, depression, and post-traumatic stress disorder. *Med Hypotheses*. 2012;78(5):571-9.
- Pattanayak SP, Sunita P, Behera P, et al. Role of immunomodulators in Ayurveda in lifestyle diseases. *J Res Ayurveda Siddha*. 2021;42(3):59-66.
- Choudhary A, Singh S. Rasayana therapy: An Ayurvedic approach to enhance immunity. *J Ethnopharmacol*. 2019;239:111904.