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Analytical Study of Ayurnutrigenomics and Its Therapeutic Effects with Co-Relation to Ancient Culinary Sciences (Soopaśāstra)

Abstract:

Introduction: Ayurnutrigenomics is an emerging interdisciplinary field that integrates the principles of Ayurveda with modern nutrigenomics to understand how food influences health at the molecular and genomic level. Ancient culinary sciences such as Soopaśāstra provide detailed insights into dietetics, recipes, and therapeutic food preparations tailored to individual prakṛti. This study aims to analyze the therapeutic effects of Ayurvedic dietetics through the lens of modern nutrigenomics, with special reference to Soopaśāstra.

Methods: A comprehensive analytical review was undertaken using Ayurvedic classical texts (Caraka Saṃhitā, Aṣṭāṅga Hṛdaya, and other commentaries) and contemporary scientific literature on nutrigenomics. Selected food formulations and recipes from Soopaśāstra were evaluated for their nutritional profile, pharmacological actions, and potential influence on gene expression according to concept of Ayurgenomics and chronic disease prevention. Correlation was drawn between prakṛti-based dietary recommendations in Ayurveda and genetic individuality emphasized in modern nutrigenomics.

Results: Preliminary analysis suggests that traditional recipes incorporating herbs and spices such as turmeric, cumin, ginger, and licorice demonstrate immunomodulatory, anti-inflammatory, and antioxidant properties that align with modern findings on gene regulation and disease prevention. Dietary guidelines in Ayurveda, when interpreted through nutrigenomic perspectives, provide a personalized framework for disease prevention and health promotion.

Discussion/Conclusion: This analytical study highlights that Soopaśāstra and ayurvedic texts not only serves as a classical dietary guide but also resonates with current nutrigenomic principles. The integration of Ayurnutrigenomics with culinary sciences offers a scientifically grounded approach for personalized nutrition and therapeutic dietary planning, bridging ancient wisdom with modern molecular insights.

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Keywords: Ayurnutrigenomics, Ayurvedic Dietetics, Personalized Nutrition, Soopaśāstra

Introduction

The history of dietetics is very old. Diet is an essential factor for the maintenance of life. Nature manages it earlier to the creation of living beings on earth. We come across plenty of dietetics references in the Veda also. Rigveda says, "Puruṣa is all that contains past, present, and future. He is also the governor of Amṛta (immortality) and that which is manifested by Anna (diet)"[1].

purūṣa evedaṃ sarvaṃ yadbhūtaṃ yac ca bhāvyaṃ | utāmṛtatvasyeśāno yadannena atirohati || (Ṛgveda 10.90.2)

According to Ayurveda, the diet plays a very delicate role in the maintenance of health. Out of the three Upastambhas, the Ahāra is recognized as an essential factor for the smooth running of life. Showing the therapeutic effect of food, Ācārya Punarvasu says that the factor which makes us... if there is a vitiation in them, disease will occur[2].

As stated by Ācārya Kaśyapa, there is a profound insight into how food is viewed not only as nourishment but also as medicine. The concept of doṣas, central to Ayurveda, illustrates this holistic approach—where ingredients and cooking techniques are selected to pacify or stimulate Vāta, Pitta, and Kapha, the fundamental energies believed to govern human physiology. Intake of wholesome and unwholesome Āhāra is responsible for the maintenance of health and the production of diseases, respectively[3].

Research Gap Analysis:

This exploration bridges ancient culinary wisdom with modern knowledge, highlighting how traditional recipes address contemporary health challenges. It analyzes how these recipes balance doṣa, examines the nutritional profiles of their ingredients, and compares them to modern dietary standards. The study also assesses the caloric content and macronutrient ratios, evaluating their suitability for various dietary needs and lifestyles. Previous research primarily focused on analyzing traditional Ayurvedic formulations, providing insights into their composition and therapeutic uses. However, these works lacked a focus on the emerging field of Ayurnutrigenomics and its potential to personalize nutrition based on genetic and Prakṛti-specific factors. This study fills this gap by combining the insights of Ayurnutrigenomics with the culinary wisdom of Soopaśāstra. It aims to bridge the traditional knowledge of dietetics with personalized nutritional approaches, which have not been extensively analyzed in previous research, thus advancing both Ayurvedic science and modern therapeutic applications.

Ayurvedic Perspective on Nutrition:

Ayurveda, an ancient Indian system of medicine, views nutrition through the lens of doṣas (Vāta, Pitta, and Kapha) and the concept of Agni. Here's a breakdown of how Ayurveda perceives nutrition[4]:

- Role of Dhātu: Ayurveda categorizes Dhātu such as Rasa, Rakta, Mamsa, Medas, Asthi, Majja, Śukra, and Ojas that are nourished by the essence of food.

Contemporary Take on Nutrition:

Nutrients are classified as macronutrients (proteins, carbohydrates, fats) and micronutrients (vitamins, minerals). Fats are energy-dense; carbohydrates are the main energy source, while proteins support growth and repair. Calorific value impacts energy balance, with excess intake leading to fat storage, beneficial in certain conditions but undesirable otherwise[5].

The Ayurvedic-Contemporary Combination:

While Ayurveda and modern nutrition originate from different cultural and scientific backgrounds, their shared emphasis on balanced diet, digestive health, individualized nutrition, holistic well-being, herbal remedies, and preventive health care demonstrates a significant alignment in their approach to promoting health and wellness. Integrating insights from both systems can offer comprehensive strategies for optimizing health outcomes and supporting patients' overall well-being.

Ayurnutrigenomics:

Ayurnutrigenomics[6] is an emerging field of interest pervading Ayurveda systems biology, where the selection of a suitable dietary, therapeutic, and lifestyle regime is made on the basis of clinical assessment of an individual maintaining one's Prakṛti. This Ayurveda-inspired concept of personalized nutrition is a novel concept of nutrigenomic research for developing personalized functional foods and nutraceuticals suitable for one's genetic makeup with the help of Ayurveda. (https://pmc.ncbi.nlm.nih.gov/articles/PMC4624353/) The term Ayurnutrigenomics emerged from the convergence of Nutrigenomics with the traditional Ayurvedic concepts of Āhāra and Pathya. It represents a structured integration of Ayurvedic nutritional principles tailored to an individual's Prakṛti, combining insights from genomics and metabolomics to establish a strong, evidence-based scientific framework for personalized dietetics. The selection of an appropriate dietary, therapeutic, and lifestyle regimen is guided by a comprehensive clinical evaluation of the individual, with due consideration of their unique Prakṛti.

Aim:

To explore the correlation between recipes in Ayurvedic texts and Soopaśāstra, and to evaluate their applicability to an individual's Prakṛti and their potential use in treating ailments beyond those traditionally described.

Primary Objective:

Analyze Ayurvedic recipes, particularly those with 'Anna Varga' components, to evaluate their potential applicability in treating both traditional and modern diseases, considering changes in lifestyle and environmental factors.

Secondary Objective:

Develop guidelines for integrating Ayurvedic recipes into modern healthcare and identify areas for future research to explore their relevance in contemporary medicine.

Research Question:

Do the recipes in Ayurvedic texts have any correlation with Soopaśāstra, and can they be applied to an individual's Prakṛti and to ailments beyond description?

Materials:

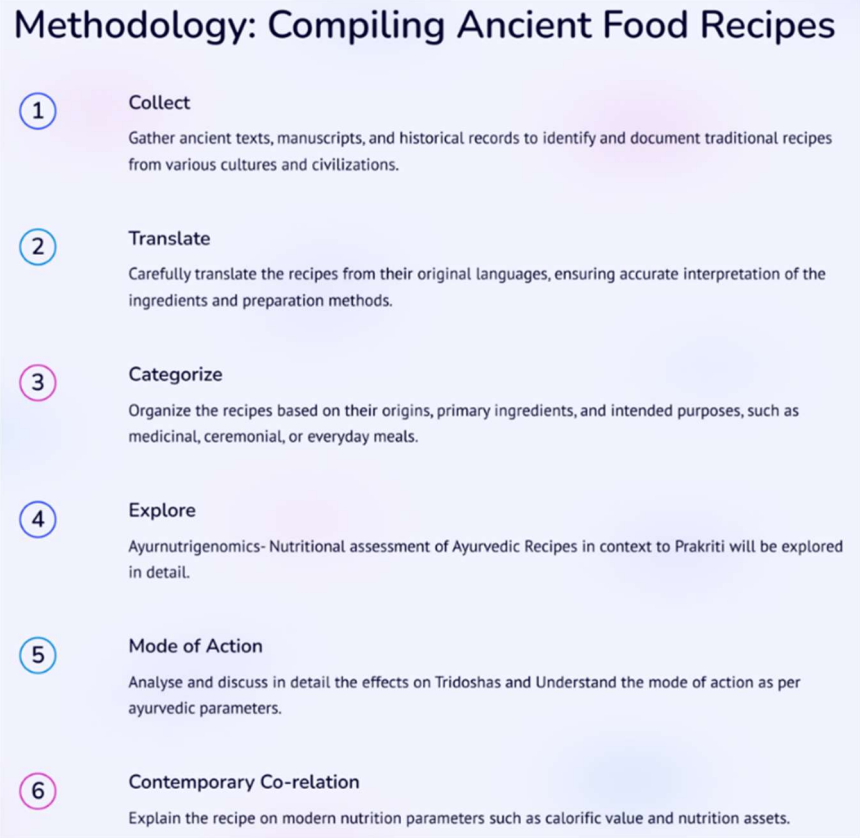
Inclusion Criteria

- Caraka Samhita
- Suśruta Samhita
- Astāṅga Hridayam
- Kaśyapa Samhita
- Bhāvaprakāśa
- Soopaśāstra
- Journals, PubMed, Google Scholar, Ayush Research Portal

Definition of Recipe: By the word "recipe," Āhāra Kalpanā mentioned in the said texts, which include Anna Varga components are to be considered. These recipes are crafted to meet specific health needs and are an integral part of Ayurvedic dietary practices. Example: Gaudika (Ghujiya).

Exclusion Criteria

- All other books/commentary of Brihattrayī and Laghutrayī, except those mentioned in the inclusion criteria.
- Books available in Hindi or other regional languages and manuscripts of all the above-mentioned books will be excluded from the present work.



Expected Outcomes

Primary Outcomes:

1. **Āhāra Kalpanā Insights**: This study compiles traditional dietary formulations from Ayurvedic texts, offering a reference for Ayurvedic doctors on therapeutic uses and health benefits of various recipes.
2. **Personalized Diet Plans**: Ayurvedic doctors can tailor diets based on Anna Varga properties and Prakṛti, enhancing treatment effectiveness.
3. **Preventive Healthcare**: Understanding ancient dietary practices aids in disease prevention, enabling Ayurvedic doctors to recommend prophylactic dietary changes.

Secondary Outcomes:

1. **Reviving Traditional Knowledge**: The study promotes the preservation of ancient culinary practices, helping Ayurvedic doctors educate patients on their benefits.
2. **Research and Innovation**: The study encourages further research in Ayurvedic dietetics, driving new clinical applications.

Significance of the Study

The study highlights the relevance of integrating Ayurvedic dietary principles with nutrigenomics, offering personalized nutrition based on individual Prakṛti and genetic makeup. It bridges ancient wisdom and contemporary science, promoting evidence-based approaches for preventive health, therapeutic nutrition, and the development of functional foods aligned with holistic well-being.

Table 1: Timeline

Task	Date	Status	Text
Phase 1: Literary Review of Ayurvedic Text	December 2024 to February 2025	Complete	Conduct a literature review.
Phase 2: Literary review of modern text	March 2025 to May 2025	Complete	Conduct a literature review.
Phase 3: Analysis of literature text reviewed	June 2025 to August 2025	Complete	Data analysis.
Phase 4: Writing thesis and submission	September 2025 onwards	In progress	Draft, revise, and finalize thesis.

References:

1. L.P. Gupta. *Biogenic Secrets of Food in Ayurveda*. Chaukhamba Sanskrit Pratishthan Delhi. First Edition 1999. Chapter 1, p. 1.
2. *Charaka Samhitā*, Sutra Sthan, Tistraishaniya Adhyaya, 11/35, available from https://niimh.nic.in/ebooks/ecaraka/?mod=read (Accessed on 11th April 2025).
3. Nepal Rajguruna P. Hemraja Sarma. *Kashyap Samhita*. Chaukhambha; Reprint 2018. Khila Sthan. Chapter 4 verse 6, p. 378.
4. *Charaka Samhitā*, Sutra Sthan, Dirghanjivitiyamadhyaya, 28/5, available from https://niimh.nic.in/ebooks/ecaraka/?mod=read (Accessed on 11th April 2025).
5. *Charaka Samhitā*, Sutra Sthan, Vividhashitapitiyadhyaya, 28/4, available from https://niimh.nic.in/ebooks/ecaraka/?mod=read (Accessed on 11th April 2025).
6. F. Vida Zohoori. Chapter 1: *Nutrition and Diet*. 2020:28:1-13. doi: 10.1159/000455365. Epub 2019 Nov https://pubmed.ncbi.nlm.nih.gov/31940634.
7. ELSEVIER-Science Direct. *Review article Ayurnutrigenomics: Ayurveda-inspired personalized nutrition from inception to evidence*. Journal of Traditional and Complementary Medicine. Volume 5, Issue 4, October 2015, Pages 228-233.