



A SURVEY STUDY TO ASSESS THE STATUS OF AGNI AND BALA AMONG HEALTHY INDIVIDUALS OF JAIPUR CITY IN HEMANTA RITU

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ABSTRACT:

This study investigates the seasonal variation in Agni (digestive/metabolic power) and Bala (strength/immunity) among healthy adults in Jaipur, India, with a particular focus on Hemanta Ritu (early winter) as described in classical Ayurvedic texts. Ayurveda asserts that both Agni and Bala reach their peak during Hemanta Ritu, contributing to optimal health and resilience against disease. To empirically validate this principle, an observational cross-sectional survey was conducted involving 200 healthy volunteers aged 18–40, of whom 180 completed the study. Participants were assessed using standard Ayurvedic parameters—Vyayama Shakti (physical strength), Ahara Shakti (digestive capacity), and Sattva (mental strength)—during both Sharad Ritu (autumn) and Hemanta Ritu. Data collection included demographic details and subjective scoring of the above parameters. Statistical analysis was performed using the Mann Whitney U test, with a significance threshold of $p < 0.05$.

The results demonstrated a statistically significant increase in both physical strength and digestive power during Hemanta Ritu compared to Sharad Ritu. Specifically, the proportion of individuals with high physical strength (Pravara Bala) rose from 35% in Sharad Ritu to 49.44% in Hemanta Ritu, while high digestive capacity (Pravara Ahara Shakti) increased from 68.88% to 81.11%. No significant seasonal difference was observed in mental strength (Sattva). The demographic profile revealed a majority of young adults, predominantly students from middle-income backgrounds. The study provides practical recommendations for Hemanta Ritu, including the consumption of nourishing, warming foods and engagement in regular exercise. By aligning modern health practices with ancient wisdom, this research highlights the enduring relevance of Ayurveda in contemporary preventive medicine and encourages further investigation into seasonal health optimisation.

Keywords: Ayurveda, Hemanta Ritu, Agni, Bala, Seasonal adaptation

INTRODUCTION

Background and Rationale:

Ayurveda posits that health is maintained by adapting to seasonal changes, particularly through the concepts of Agni and Bala. Hemanta Ritu is traditionally considered the period of peak digestive and physical strength [1,2]. This study aimed to empirically validate these claims and provide practical recommendations for seasonal health management.

Objectives:

- To assess Agni and Bala among healthy individuals in Jaipur during Hemanta Ritu.
- To compare these parameters with those in Sharad Ritu.
- To develop evidence-based dietary and lifestyle guidelines for Hemanta Ritu.

METHODS

Study Design:

Observational, cross-sectional survey.

Setting and Participants:

- Location: Jaipur, Rajasthan, India.
- Participants: 200 healthy volunteers (aged 18–40), with 180 completing the study.
- Inclusion: Healthy adults, both sexes, aged 18–40.
- Exclusion: Individuals with acute/chronic illness or who developed illness during the study [3].

Variables and Data Collection:

- Agni and Bala assessed using Ayurvedic parameters: Vyayama Shakti (physical strength), Ahara Shakti (digestive capacity), Sattva (mental strength) [4].
- Data collected during Sharad Ritu (autumn) and Hemanta Ritu (early winter).

Statistical Analysis:

- Mann Whitney U test used for comparison.
- $p < 0.05$ considered statistically significant.

RESULTS

Participant Flow:

- 200 registered, 180 completed (90% completion rate).

Demographics:

- Majority aged 21–30.
- 55% female, 45% male.
- Most were students from middle-income backgrounds.

Key Findings:

- **Physical Strength (Sharirika Bala):**
 - Pravara Bala (high strength): 35% in Sharad Ritu, 49.44% in Hemanta Ritu ($p = 0.007$) [5].
- **Digestive Power (Agni Bala):**
 - Pravara Ahara Shakti: 68.88% in Sharad Ritu, 81.11% in Hemanta Ritu ($p < 0.0001$) [5].
- **Mental Strength (Sattva Bala):**
 - No significant difference between seasons ($p = 0.16$) [5].

DISCUSSION

The present study provides empirical validation for the classical Ayurvedic assertion that Agni (digestive/metabolic power) and Bala (strength/immunity) reach their peak during Hemanta Ritu (early winter) [1,2]. The significant increase in both physical strength and digestive capacity observed among healthy individuals in Jaipur during this season underscores the dynamic interplay between environmental factors and human physiology, a core tenet of Ayurveda.

Interpretation of Findings

The results demonstrated that both Sharirika Bala (physical strength) and Agni Bala (digestive power) were significantly higher in Hemanta Ritu compared to Sharad Ritu. This aligns with the Ayurvedic

concept of Ritucharya, which advocates for seasonal adaptation in diet and lifestyle to maintain optimal health [1,4]. The physiological basis for this phenomenon can be attributed to the body's response to colder temperatures, which stimulates metabolic activity and enhances resilience. The survey's findings are consistent with previous research and classical texts, which describe Hemanta Ritu as a period of heightened vitality and digestive capacity [2,4].

Interestingly, the study found no significant seasonal variation in Sattva Bala (mental strength). This suggests that while physical and metabolic parameters are closely linked to environmental changes, psychological attributes may be less susceptible to seasonal fluctuations, or may require different assessment tools for subtle changes to be detected.

Integration with Ayurvedic Theory

Ayurveda views the human body as a microcosm of the universe, subject to cyclical changes that mirror those in the external environment [1,2]. The concept of Kala (time/season) is central to this understanding, with each Ritu (season) exerting specific influences on Dosha (bodily humours), Agni, and Bala. Hemanta Ritu, occurring during the Visarga Kala, is characterised by increased strength and digestive power, as the body adapts to cold by boosting metabolic processes [1,2,4]. This adaptation is reflected in the survey's findings, which show a marked improvement in both physical and digestive parameters during this season.

Practical Implications

The study's results have important practical implications for health maintenance and disease prevention. By following the principles of Ritucharya, individuals can harness seasonal variations to optimise their health. For Hemanta Ritu, Ayurveda recommends a diet rich in nourishing, unctuous, sweet, and salty foods with warming properties, alongside regular exercise and routines that support adaptation to cold [4]. These recommendations are supported by the survey data, which indicate that such practices are associated with enhanced Agni and Bala.

Strengths and Limitations

A major strength of this study is its grounding in both classical Ayurvedic theory and contemporary empirical research. The use of standardised assessment criteria and robust statistical analysis lends credibility to the findings. However, the study is limited by its single-city setting, relatively narrow age range, and short duration. The sample was predominantly composed of young adults and students, which may limit the generalisability of the results to other populations.

Future Directions

The findings of this study highlight the enduring relevance of Ayurveda in modern preventive medicine. Further research is warranted to explore seasonal variations in Agni and Bala across different regions, age groups, and populations. Longitudinal studies could provide deeper insights into the mechanisms underlying these changes and inform the development of tailored health interventions.

Conclusion

In summary, this study substantiates the Ayurvedic principle that Agni and Bala are highest in Hemanta Ritu, and demonstrates the value of seasonal adaptation in promoting health and resilience. By integrating ancient wisdom with modern research, the study offers practical guidance for individuals seeking to optimise their wellbeing throughout the year.

Practical Recommendations

Diet for Hemanta Ritu:

- Emphasise nourishing, unctuous, sweet, and salty foods with warming properties [4].
- Prefer foods with Guru (heavy), Snigdha (unctuous), Madhura (sweet), Lavana (salty), and Ushna Virya (warming) qualities.

Lifestyle:

- Engage in regular exercise suited to individual capacity [4].

- Maintain warmth and follow daily routines that support seasonal adaptation.

ETHICS AND TRANSPARENCY

Ethical Considerations:

- Participation was voluntary.
- Exclusion of individuals with illness ensured safety [3].

Funding and Conflicts of Interest:

- Not specified in the summary.

CONCLUSION

This survey provides empirical support for the Ayurvedic view that Agni and Bala peak in Hemanta Ritu [1,2,5]. Adhering to seasonally appropriate diet and lifestyle can help individuals optimise health and immunity. Further research is encouraged to expand these findings to broader populations.

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