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# AN AYURVEDIC APPRAISAL OF TIMELY EATING (KAALBHOJANAM): MODULATION OF AGANI, DOSHA, DHATU AND ITS ROLE IN HEALTH PROMOTION

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#### **ABSTRACT**

In Ayurveda, Kālabhojanam, the practice of consuming food at a fixed and appropriate time, holds a central role in maintaining health and preventing disease. Modern lifestyles, characterized by irregular schedules and disrupted eating patterns, often neglect this critical aspect, contributing to digestive disturbances and systemic imbalances. This integrative appraisal explores the Ayurvedic understanding of Kālabhojanam and its influence on Agni, Doshas, and Dhatus. Drawing on classical Ayurvedic texts and contemporary interpretations, the study highlights the physiological significance of synchronizing meal timing with natural biological rhythms and digestive capacity. It highlights that timely food intake enhances digestion, nutrient assimilation, and tissue nourishment, while irregular eating can result in Mandagni, Ama formation, and Dosha imbalance, leading to various health disorders. This study re-establishes Kālabhojanam as a lowcost, non-pharmacological strategy in preventive and promotive

healthcare. Recognizing *Kala* (time) as a fundamental causal factor in all physiological processes, the paper asserts that adherence to *Ayurvedic* principles of meal timing offers a vital approach to achieving sustainable wellness and longevity.

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**KEYWORDS:** Kaalbhojanam, Ahar, Dhatu, Dosha, Agani, Kaal.

#### **INTRODUCTION**

In today's fast-paced lifestyle, irregular meal timings due to professional demands can disrupt physiological functions and lead to various health disorders. In Ayurveda, health is achieved when the doshas (bodily humors), agni (digestive fire), dhatus (tissues), and malas (waste products) are in a balanced, harmonious state. Additionally, the soul, sense organs, and mind must be in a state of complete well-being.<sup>[1]</sup> Among the various factors that contribute to this equilibrium, Ahara holds a vital role in preserving and promoting overall health. [2] It is considered one of the three pillars of life (Trayopasthambh). [3]  $\bar{A}h\bar{a}ra$  serves as the primary energy source for physical and mental functions and contributes to both strength(Bala) and immune defense.<sup>[4]</sup> The timing of food intake, in addition to the quantity and quality of the diet, plays a critical role in influencing an individual's overall health. "Āchārya Charaka, in Sutra Sthāna 25, mentions "कालभोजनमारोग्यकराणाां, meaning that food taken at a definite time is foremost and superior among all factors that promote health.<sup>[5]</sup> Among all dietary practices that promote good health, Kālabhojanam, rather than at one's convenience, is considered the most effective approach. Kāla (time) is recognized as one of the nine Karana Dravyas (causal factors). Without the influence of Kāla, no action (Karya) can manifest, even if all other causal factors are present. The appropriate alignment of  $K\bar{a}la$  with any activity is essential for achieving the desired outcome. [6]

#### AIM AND OBJECTIVE

- 1. To evaluate the influence of meal timing on the balance of *Agni*, *Dosha*, *Dhatu*, and overall health.
- 2. To explore the classical interpretation of "**कालभोजनमारोग्यकराणा**ं" within Ayurvedic literature.

#### **Need of the Study**

Irregular meal patterns are increasingly associated with the rising prevalence of metabolic disorders, especially in urban Indian populations, where metabolic syndrome affects approximately 25% of individuals.<sup>[7]</sup> *Ayurveda* emphasizes the concept of *Kaalbhojanam* as essential for maintaining metabolic balance. This study aims to bridge the gap between traditional wisdom and modern health challenges by evaluating meal regularity, guided by *Ayurvedic* principles, as a non-pharmacological strategy for metabolic health promotion.

#### MATERIAL AND METHODS

A comprehensive review of classical *Ayurvedic* texts (*Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*), along with previous research articles, was conducted to understand the multidimensional significance of *Kālabhojanam*.

#### **Review of Literature**

A systematic review was undertaken to evaluate the *Ayurvedic* principle of *Kālabhojanam Arogyakaraṇam* and its physiological implications. The review focused on its influence on *Agni*, *Dhātu*, and the balance of *Doṣhas*. Additionally, the concept of *Kālabhojanam* for maintaining health has been elaborated upon by various *Āchāryas* such as *Charaka*, *Suśhruta*, and *Vāgbhaṭa*, each emphasizing specific timeframes and physiological contexts for optimal digestion and systemic harmony. This review highlights the importance of *Kālabhojanam* as a concept of chrononutrition in *Ayurveda*.

The term "Kaal" signifies time, while "Aahar" refers to food. Together, Kaal bhojan highlights the synchronization of food intake with the body's natural biological rhythms. An alternative perspective suggests that *Kalabhojanam* is not strictly associated with fixed time intervals between meals but is more closely linked to the sensation of hunger, which arises once the previous meal has been adequately digested. The concept of Kala signifies the "appropriate time," which is context-dependent and aligned with the individual's physiological state rather than absolute clock time. Furthermore, it can be argued that the ideal window for meal intake may vary due to the dynamic nature of Agni (digestive fire), which fluctuates daily based on individual health and metabolic status. Therefore, meal timing should be flexible and personalized, guided by the current functional state of the digestive system. It is important to note that Kalabhojanam does not imply that food can be consumed at any time throughout the 24-hour day. Rather, it must align with the principles of Dinacharya (daily routine), including appropriate times for waking, remaining active during the day, and sleeping at night.<sup>[8]</sup> Meal timing should therefore be in harmony with the body's natural circadian rhythms and daily lifestyle patterns. Also, Acharya mentions "Ekashanam Sukhaparinamakaranam," meaning that having a single meal each day supports easy and efficient digestion.<sup>[5]</sup> Kalabhojanam is mentioned in the context of agryasangraha, referring to key interventions and substances that play a central role in attaining a specific goal.<sup>[5]</sup> This suggests that even if one adheres to all other Ayurvedic guidelines for achieving good health,

neglecting *Kalabhojanam* alone could hinder the realization of a truly sustainable health span.

Āchārya Vāgbhaṭa describes Kalabhojana as. [9]

## कालस्तु ऋतुव्याध्यपेक्षो जीर्णाजीर्णलक्षणश्च||11||

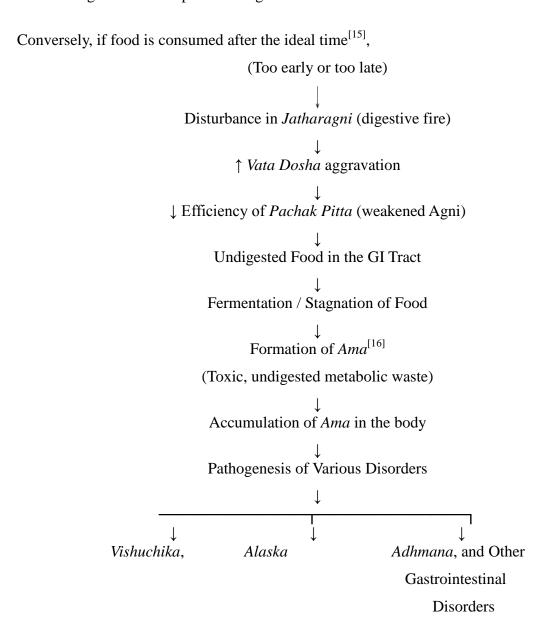
meaning that 'Kala' is determined by Ritu (seasonal timing), Vyadhi-āpekṣā (state of health or disease), Jīrṇa-Ajīrṇa Lakṣaṇa (signs of digestion or indigestion). Food should always be consumed according to the Ritucharya and Avastha. However, if practicing Kalabhojana, regardless of the season or health condition, it is best to eat only after observing the Jirna Lakshana. Bhāvaprakāśa emphasizes that the procedure of food intake (Bhojana Vidhi) is analogous to the ritual of Agnihotra Homa. Just as Agnihotra must be performed precisely at specific times, such as sunrise and sunset, to be effective, food should likewise be consumed at fixed and appropriate times each day to support optimal digestion and overall health. [10]

#### Relation between Kālabhojanam and Agni

In Ayurveda, Agni refers to the metabolic "digestive fire" that governs the biochemical processes involved in digestion and assimilation. Specifically, Jatharagni, located in the gastrointestinal tract, is responsible for the primary breakdown of ingested food into bioavailable nutrients. When food is consumed, Niyat Kaal, it supports the optimal functioning of the digestive fire (Agni), which governs metabolic activity in the gastrointestinal system. Under these conditions, the digestive process occurs efficiently, allowing macronutrients and micronutrients to be effectively broken down, absorbed, and transformed into Ahara Rasa, the primary nutrient essence. Concurrently, non-nutritive residues are eliminated as Kitta (waste).[11] The assimilated Ahara Rasa serves as the foundational substrate for the sequential formation of bodily tissues (Dhatus) and is essential for the nourishment, repair, and maintenance of various physiological systems. [12] Regular. well-timed eating patterns also support the regulation of digestive enzyme secretion, paralleling the role of *Pachak Pitta*, which facilitates the breakdown of food and conversion of nutrients into bioavailable forms, hormone cycles (such as insulin and cortisol), and circadian rhythms, thereby promoting metabolic balance, enhancing immunity, and reducing the risk of chronic disorders related to poor digestion or nutrient assimilation. [13] The strength and activity of *Jatharagni* are modulated by the timing (*Kaal*) of food intake.

outlined by Acharya Sushruta, the Niyat Kaal of food intake plays a critical role in maintaining digestive health. If food is consumed before the appropriate time, when the

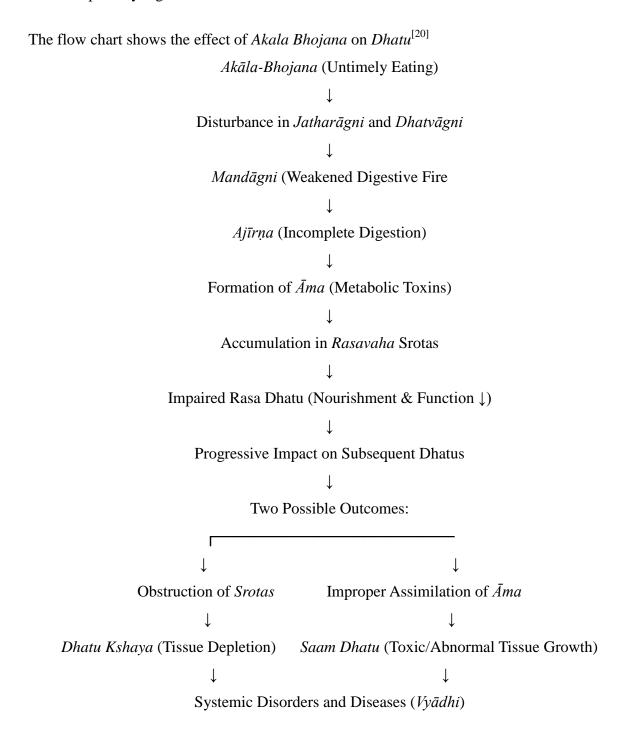
previous meal has not yet been fully digested, it can overload the digestive system. Regardless of quantity, this can result in incomplete digestion, leading to *Guruta* and contributing to the development of digestive disorders.<sup>[14]</sup>



#### Effect on Dhatu

When food is consumed at the appropriate *kaal*, the *Ahara* is composed of the *Panchamahabhutas*<sup>[17]</sup> are efficiently and thoroughly digested by the action of *Jatharagni*, leading to the proper formation of *Ahara-Rasa*, which is then absorbed through the *Grahani* and carried to the heart (*Hridaya*), from where it is circulated throughout the body. Each *Dhatu* possesses its own *Agni Dhatvagni*, which acts on the specific nutrients required for that *Dhatu*, transforming them into a stable and functional form. *Dhatvagni* is functionally

correlated with *Jatharagni*<sup>[19]</sup>, as the proper metabolism at the *Dhatu* level depends on effective primary digestion.



#### Effect on Dosha

Doshas are derived from the five fundamental elements (*Prithvi*, *Jala*, *Agni*, *Vayu*, *Akash*). At the final stage of digestion, the *Bhūtāgnis* act on *Panchabhoutika Āhāra* and transform it into the *Tridoshas Vāta*, *Pitta*, and *Kapha*, thus maintaining physiological balance. The natural predominance of the *Doshas* governs the functional rhythm of the day. During

midday, *Pitta Dosha* becomes dominant, and this period is considered the optimal time for digestion, as *Jatharāgni* (digestive fire) is at its peak.<sup>[22]</sup> However, when meals are delayed during this *Pitta* phase, it leads to an aggravation of *Pitta Dosha* (*Pitta Vriddhi*), increasing internal heat within the body. This manifests as conditions such as *Amlapitta* (acid reflux or hyperacidity) and *Daha* (burning sensation in the chest or abdomen), due to the excessive accumulation of digestive acids in the absence of food.<sup>[23]</sup>

Conversely, when meals are skipped altogether, it leads to the aggravation of  $V\bar{a}ta\ Vosha^{[15]}$  and a relative suppression of Pitta.  $V\bar{a}ta$ , composed of  $V\bar{a}yu$  (air) and  $\bar{A}k\bar{a}\acute{s}a$  (ether)<sup>[21]</sup>, governs movement, the nervous system, and sensory functions. The state of  $An\bar{a}h\bar{a}ra$  disrupts the body's circadian rhythm (Dinacharya), provoking the  $R\bar{u}k\dot{s}a$  (dry), Laghu (light), and Chala (mobile) qualities of  $V\bar{a}ta$ . As a result, individuals may experience  $An\bar{a}ha$  (gas accumulation or bloating), Vibandha (constipation), Klama (fatigue or tiredness). At the same time, due to the absence of food,  $Pitta\ Dosha$ , which is responsible for  $P\bar{a}chana\ Karma$ , becomes subdued. This weakening of  $Pitta\ leads$  to  $Mand\bar{a}gni$ , impairing the proper digestion and assimilation of food when it is eventually consumed. Over time, this can become the root cause of multiple systemic disorders through the accumulation of  $\bar{A}ma$  (toxic metabolic byproducts) and disruption of  $Dh\bar{a}tu$  formation.

#### **CONCLUSION**

Kalabhojanam is not merely a supportive practice but a vital element for achieving and maintaining Arogya (optimal health). Timely food intake, in alignment with the body's natural Doshic cycles and digestive capacity (Agni). It plays a critical role in maintaining Doshic balance, preventing Ama (toxins), and supporting overall well-being. Regardless of dietary quality, if meals are consumed at improper times without consideration for factors like season (Ritu), health condition (Avasthā), or signs of digestion (Jīrṇa Lakṣaṇa), the risk of dosha imbalance and disease significantly increases. Conversely, when food is taken mindfully, respecting time and individual needs, it becomes Arogyakaraṇa, a promoter of health, vitality, and longevity. Thus, Kāla Bhojanam stands as a timeless Ayurvedic wisdom that remains especially relevant in today's fast-paced world, where irregular routines often compromise digestive and systemic health. Practicing it consciously is a simple yet profound step toward achieving a sustainable and balanced health span.

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