



Exploring Ayurvedic Liquid Nutrition and Health Beverages in *Kshemakutuhala*: A Review

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	<i>Abstract</i>
<p>Article History</p> <p>Received:09/03/2021 Revised:24/03/2021 Accepted:05/04/2021</p> <p>CC License</p>	<p>Introduction: Kshemakutuhala, authored by Kshema Sharma in the 16th century A.D., is a significant classical text focusing on culinary science and dietetics. It presents a comprehensive compilation of diverse food and beverage preparations, including both vegetarian and non-vegetarian items, along with their properties and nutritional relevance. The text is systematically organized into twelve chapters termed Utsava, with particular emphasis on liquid nutrition in the later sections.</p> <p>Methods: A qualitative review of Kshemakutuhala was undertaken to analyse descriptions of Ayurvedic health drinks and liquid dietary preparations. Relevant content from the Eleventh and Twelfth Utsava was critically examined and interpreted in the context of Ayurvedic dietetics and contemporary nutritional understanding.</p> <p>Results: The Eleventh Utsava details a variety of appetizer preparations formulated using ingredients such as citrus fruits (orange, lemon, citron), sesame paste, mango, and lotus fiber, which exhibit notable carminative and digestive properties. The Twelfth Utsava elaborates on diverse liquid preparations, including milk-based formulations, cooling beverages, buttermilk and various Panaka (sweet drinks) prepared from ingredients like raw and ripe mango, lemon, tamarind and <i>Syzygium cumini</i>. The text also highlights the use of natural colouring and flavouring agents such as saffron, red sandalwood, cardamom, clove, camphor, Indian bay leaf and black pepper, which enhance both palatability and therapeutic value.</p> <p>Discussion: The descriptions in Kshemakutuhala reflect a well-developed understanding of liquid nutrition in Ayurveda, emphasizing the role of beverages in digestion, appetite stimulation and overall health maintenance. These formulations demonstrate a balance between taste, nutrition and therapeutic benefits. In contrast to the increasing consumption of unhealthy beverages in modern times, these traditional preparations offer a scientifically relevant and holistic alternative.</p> <p>Conclusion: Ayurvedic health drinks and liquid preparations described in Kshemakutuhala hold significant potential for promoting health and preventing disease. Their integration into contemporary dietary practices may contribute to improved nutritional status and well-being. However, further scientific validation and clinical research are required to substantiate their efficacy.</p> <p>Keywords: Ayurvedic dietetics, Beverages, Culinary science, Kshemakutuhala, Panaka</p>

INTRODUCTION:

Ayurveda is founded on the principle of “Sarvam Dravyam Panchabhautikam,” which states that all substances in the universe are composed of five fundamental elements—Prithvi (earth), Agni (fire), Jala (water), Vayu (air), and Akasha (space). This concept is elaborated in classical texts such as the Charaka Samhita and Sushruta Samhita, where it is explained that both the human body and the food consumed are constituted by these Panchamahabhutas. Any imbalance in these elements leads to disruption in physiological functions and ultimately results in disease. Therefore, maintaining their equilibrium is essential for preserving health and ensuring proper bodily functioning. Ayurvedic dietary guidelines further emphasize the proper method of food intake for optimal digestion. According to Charaka Samhita (Sutra Sthana 5/8), the stomach should be functionally divided into three parts during meals, one part filled with solid food (Prithvi), the second with liquids (Jala), and the third left unfilled (Akasha). This proportional intake facilitates efficient digestion and prevents disturbances in Agni.

Diet (Ahara) is considered one of the primary pillars of life (Trayopastambha) in Ayurveda, playing a crucial role in maintaining health and preventing disease, as described in Charaka Samhita (Sutra Sthana 11/35). Ayurveda also elaborates on various forms of liquid nutrition that serve both dietary and therapeutic purposes. However, such knowledge is distributed across multiple classical texts, one of which is Kshemakutuhala.

The term Kshemakutuhala is derived from the Sanskrit words ‘Kshema’ (well-being) and ‘Kutuhala’ (curiosity), collectively implying an inquisitive exploration into human health and well-being. The text presents a detailed account of diverse culinary preparations, integrating their sensory appeal with their Ayurvedic properties and therapeutic significance.

MATERIAL AND METHODS:

The present review was conducted through a comprehensive analysis of classical and contemporary sources. The primary data were obtained from Kshemakutuhala, which provides detailed descriptions of various liquid nutritional preparations and their therapeutic indications. Relevant sections of the text were systematically examined and interpreted in the context of Ayurvedic dietetics. In addition to the classical source, an extensive literature survey was carried out using electronic databases and online resources.

RESULTS & DISCUSSION:**1. Appetizers –**

- **Krishara¹**

Krishara is an Ayurvedic dish prepared by cooking twelve parts of Shastika rice (*Oryza sativa*) with eight parts of green gram in water until thick, and then adding ginger, asafoetida and turmeric. It is especially beneficial during winter, as it provides nourishment, enhances digestion and supports overall strength and gastrointestinal health.

- **Preparation using buttermilk²**

A buttermilk-based preparation is made by boiling buttermilk with ginger for a prolonged period, after which it is seasoned with a powdered mixture of asafoetida, rock salt, cardamom and pepper. This formulation helps to quickly stimulate weakened digestive fire (Agni). Boiled buttermilk is considered highly beneficial, acting almost like nectar and is especially indicated in conditions such as chronic cold, cough, breathlessness, indigestion and loss of taste, particularly during the cold season.

- **Vishyandana**

It is a nourishing Ayurvedic preparation made by heating equal quantities of buttermilk and milk until the volume reduces to half. To this, one-eighth part of unhusked rice and sesame seeds, along with equal amounts

of the seeds of *Buchanania latifolia* and *Nelumbo nucifera*, are added, followed by half part of ghee and sugar. After proper cooking, it is further fortified with dried ginger, pepper, long pepper, camphor and ghee³.

- **Amrapallava Kshudotakam⁴**

It is an Ayurvedic appetizer prepared from the tender, brownish-red sprouts of mango (*Mangifera indica*). The sprouts are cut into small pieces, mixed with salt and shaped into small balls. These are then sprinkled with asafoetida and cooked in ghee and milk. This preparation is known to effectively relieve chronic loss of appetite and stimulate digestion.

- **Mrinala Kshudotakam⁵**

It is an Ayurvedic appetizer prepared from lotus stem (*Nelumbo nucifera*). The stem is treated with rock salt and lemon, then soaked in water along with pieces of ginger. This preparation is rich in dietary fiber, which helps add bulk to stools and prevents constipation. It also supports healthy digestion and is beneficial in managing various gastrointestinal disorders⁶.

2. Milk Preparation –

- **Takra Kalpana (Buttermilk Preparation)**

This traditional Ayurvedic buttermilk preparation is made by diluting sour curd obtained from buffalo milk with four parts of water and placing it in a clean earthen vessel. The mixture is churned, typically in the morning, after which the supernatant portion is removed to obtain a light and homogeneous liquid. Subsequently, a powdered blend of fried asafoetida (Hingu), cumin seeds (Jeeraka), salt and black mustard is added in small quantities to enhance both flavour and therapeutic efficacy. This preparation of buttermilk (Takra) is well known for its digestive benefits. It acts as an appetizer (*Rochana*), stimulates digestive fire (*Deepana*) and facilitates proper digestion (*Pachana*). It is also described as beneficial in managing abdominal disorders and contributes to overall nourishment. The inclusion of spices further augments its carminative and digestive properties, making it an important dietary preparation in Ayurvedic practice⁷.

- **Candraprabha⁸**

Candraprabha is a traditional Ayurvedic preparation in which milk is partially boiled, followed by the addition of rice grains that have been lightly coated with ghee. The mixture is then cooked until the rice becomes completely soft. Saffron is incorporated to impart colour as well as enhance its therapeutic value, and the preparation may be consumed with honey. This formulation is considered nourishing and strengthening (*Balya*), supporting overall growth and vitality. The combination of milk and rice provides a rich source of essential nutrients, while ghee contributes to its unctuous and rejuvenating properties. Milk, in particular, is known to supply vital nutrients such as calcium, phosphorus, B-complex vitamins, potassium, vitamin A, magnesium, zinc, and vitamin D, which are essential for tissue nourishment and maintenance of physiological functions⁹.

- **Sasirekha**

Sasirekha is a traditional Ayurvedic preparation made by combining boiled milk with rice and sugar, followed by cooking the mixture until the rice becomes soft and well-integrated. This formulation is considered nourishing and strengthening (*Balya*), promoting overall vitality and improving appetite (*Rochana*). It is also described as beneficial in alleviating burning sensations, indicating its soothing and cooling properties. The combination of milk and rice provides sustained nourishment, making it suitable for enhancing general health and recovery.

- **Coconut-Based Milk Preparation¹⁰**

This traditional Ayurvedic preparation is made by cutting the fleshy portion of coconut into small pieces and cooking it in milk along with sugar. The mixture is gently boiled to allow the essence and nutrients of the coconut to infuse into the milk. It is then filtered to obtain a smooth liquid, which is further enriched through fumigation with the resin of *Aquilaria malaccensis* to impart a distinctive aroma and therapeutic quality. This formulation is considered highly nutritious and palatable due to its sweet taste. It acts as an effective appetizer (*Rochana*) and provides a cooling effect on the body (*Sheeta*), making it particularly beneficial in conditions associated with heat and dehydration. The combination of coconut and milk contributes to nourishment and hydration, supporting overall vitality and well-being.

- **Orange-Based Milk Preparation¹¹**

This preparation involves cooking the fleshy portion of orange fruit with ghee and sugar. After allowing the mixture to cool, it is combined with partially boiled milk in appropriate proportions. Cardamom (*Elettaria cardamomum*) is added to impart a pleasant aroma and enhance its therapeutic value. This formulation integrates the nutritive qualities of milk with the refreshing and digestive properties of orange. The inclusion of ghee contributes to its unctuous nature, while cardamom aids digestion and improves palatability. Overall, it serves as a nourishing and mildly digestive-supportive preparation.

3. Curd Preparation -

- **Hamsini**

Hamsini is a traditional Ayurvedic preparation made from thick, water-free cow's milk. The milk is blended with curd and then filtered to obtain a smooth consistency. To this preparation, sugar, cardamom, and black pepper are added to enhance both its taste and therapeutic properties. This formulation is known to stimulate and strengthen digestive fire (Agni). The combination of milk and curd provides nourishment and supports gut function, while cardamom and black pepper contribute to Deepana–Pachana (digestive enhancement). Overall, Hamsini serves as a nutritive as well as digestive-supporting preparation¹².

- **Rasala¹³**

Rasala is a traditional Ayurvedic preparation made by combining sweet curd with sugar, ghee, honey, black pepper, and cardamom. The mixture is then thoroughly churned, with the addition of a small quantity of camphor to enhance its aroma and therapeutic properties. This formulation is considered nourishing and strengthening (Balya), while also acting as an effective appetizer (Rochana). Its unctuous nature (Snigdha) supports bodily lubrication and vitality. Due to its cooling and refreshing qualities, Rasala is particularly suitable for consumption during the summer season.

- **Kharabuja Rasala**

Kharabuja Rasala is a refreshing Ayurvedic preparation made by blending sweet curd with small pieces of muskmelon. The formulation is further enhanced with the addition of lemongrass, which imparts a pleasant aroma and additional therapeutic value. This preparation is known to help restore weakened digestive fire (Agnimandya), stimulate appetite (Rochana), and promote diuresis¹⁴.

- **Kharabuja Rasala with Mango-Based Preparation**

Another variation of Kharabuja Rasala involves the incorporation of muskmelon pieces into the juice of ripe mangoes, along with sugar, camphor and fresh ginger. This formulation combines the nourishing properties of mango with the cooling effect of muskmelon. This drink is especially beneficial for individuals exposed to excessive heat or sunlight, as it helps in replenishing fluids, restoring energy, and providing a cooling effect¹⁵.

4. Panaka (Sweet Drinks) -

- **Pakva Amraphala Panaka (Drink Prepared from Ripe Mango)¹⁶**

Pakva Amraphala Panaka is a traditional Ayurvedic sweet beverage prepared using fully ripe mangoes. The juice extracted from ripe mango fruit is blended with sugar and aromatic spices such as cardamom, clove, fresh ginger and saffron to enhance both flavour and therapeutic value. This formulation is described as an effective appetizer (Rochana) and is known for its nourishing and strengthening properties. It is also considered Vrishya (aphrodisiac) and contributes to overall vitality. Ripe mango, being rich in natural sugars and nutrients, acts as a restorative tonic and is particularly beneficial in conditions like heat exhaustion or heat stroke. The inclusion of spices such as ginger and clove further supports digestion, while saffron and cardamom improve palatability and add to its rejuvenating qualities¹⁷.

- **Apakva Amraphala Panaka (Drink Prepared from Unripe Mango)¹⁸**

Apakva Amraphala Panaka is a traditional Ayurvedic beverage prepared using unripe mango as the primary ingredient. In its preparation, unripe mangoes are first cooked and then processed to extract their juice. This extract is subsequently combined with milk, sugar, black pepper and water (added in half the quantity of milk) to obtain the final formulation. From a nutritional and therapeutic perspective, unripe mango is known to possess significant antioxidant properties and plays a role in stimulating the digestive system. It promotes

the secretion of digestive enzymes, thereby enhancing digestion and improving gastrointestinal function. The addition of black pepper further augments its Deepana and Pachana effects, while milk and sugar contribute to its nutritive and palatable qualities.

- **Jambu Phala Panaka (Drink Prepared from Jamun)¹⁹**

Jambu Phala Panaka is a traditional Ayurvedic beverage prepared from the pulp of seedless Jamun (*Syzygium cumini*). The fruit is crushed along with sugar and water to obtain a fresh extract, which is then supplemented with black pepper and leaves of Bhringaraja (*Eclipta prostrata*) to enhance its therapeutic efficacy. This preparation is described as an effective appetizer (Rochana), promoting appetite and supporting digestive function. Jamun is recognized for its rich iron content and its beneficial role in maintaining metabolic health. It has been traditionally used in the management of conditions such as diabetes, as well as in supporting cardiovascular and hepatic functions. The addition of black pepper contributes to digestive stimulation, while Bhringaraja further enhances its medicinal value²⁰.

- **Amlika Phala Panaka (Drink Prepared from Tamarind)²¹**

Amlika Phala Panaka is a traditional Ayurvedic beverage prepared from ripe tamarind fruit. The pulp is macerated in water to extract its juice, which is then blended with sugar and black pepper. Aromatic substances such as clove and camphor are added to enhance its fragrance and therapeutic properties. This preparation is recognized for its appetizer (Rochana) effect and its ability to stimulate digestive fire (Deepana). Tamarind is known for its mild laxative and digestive properties, aiding in the regulation of gastrointestinal function²². The addition of black pepper further enhances digestive activity, while clove and camphor contribute to both aroma and medicinal value. Overall, this formulation supports appetite, digestion and gastrointestinal comfort.

- **Nimbu Phala Panakam (Lemon-Based Drink)²³**

Nimbu Phala Panakam is a traditional Ayurvedic beverage prepared by combining one part of lemon juice with six parts of sugar syrup. The mixture is further enhanced with the addition of black pepper and clove, which contribute to its flavour as well as therapeutic properties. This formulation is described as an effective appetizer (Rochana), promoting appetite and aiding digestion. Lemon is a rich source of vitamin C and is known for its anti-inflammatory, antimicrobial, anticancer, and antiparasitic properties. The inclusion of black pepper enhances digestive activity (Deepana - Pachana), while clove adds aromatic and medicinal value. Overall, this preparation supports digestion and contributes to general health and immunity.

- **Narangi Phala Panaka (Orange-Based Drink)²⁴**

Narangi Phala Panaka is a refreshing Ayurvedic beverage prepared from the juice of ripe oranges. The extracted juice is combined with sugar, fresh ginger and a small quantity of powdered camphor to enhance its flavour and therapeutic value. This formulation is described as an effective appetizer (Rochana), aiding in the stimulation of appetite and digestion. Oranges are known for their detoxifying properties and their ability to maintain hydration and support bowel regularity. The inclusion of fresh ginger contributes to digestive stimulation (Deepana & Pachana), while camphor adds a cooling and aromatic effect. Overall, this preparation helps in improving appetite, relieving constipation, and promoting general digestive health.

CONCLUSION:

The review of Kshemakutuhala shows that it provides detailed knowledge of Ayurvedic food and liquid preparations used in daily life, reflecting the richness of Indian culinary science. The described beverages and formulations promote digestion, nourishment and overall health through simple ingredients and methods. Many of these preparations can be easily incorporated into modern diets as healthy alternatives to processed drinks. Understanding and adopting these traditional practices can support better well-being, although further scientific validation is needed.

Conflicts of Interest - Nil

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