Rice Kanji: An Ancient Secret for Wellness in the Modern Era

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Introduction:

Rice kanji, also known as rice gruel or congee, is a probiotic-rich fermented rice water beverage primarily found in Tamil Nadu and Kerala, India. The term "kanji" has its origins in Japanese, meaning “Han characters,” and traces its roots back to North India where it is documented in ancient Ayurvedic texts. Historically, rice kanji was prepared as a staple during the festival of Holi, made in large earthen pots and left to ferment under the sun, which imparted a distinctive flavor and health benefits from probiotics. Besides its name in India and Sri Lanka, similar dishes are known as Congee in China, Juk in Korea, and Okayu in Japan. With a growing global interest in natural healing, gut health, and minimalist nutrition, this humble food is making a quiet comeback as a wellness staple.

Preparation of kanji:

Rice kanji is prepared by soaking leftover cooked rice in water overnight, allowing it to ferment. This dish

is prepared differently in different regions. Some used to consume the fermented rice water, while others blended the rice into a smooth, savoury porridge with additional ingredients. In Kerala,”kanji and payaru” (rice gruel served with cooked green gram mixed with grated coconut, pickle, and pappad) is a nostalgic meal. In Tamil Nadu, kanji is often flavoured with buttermilk, shallots, cumin, or fenugreek for added taste and health benefits.

Benefits of kanji

Improves Gut health

Fermented rice water is a natural probiotic rich in beneficial microorganisms, such as *Lactobacillus* and *Bifidobacterium* species. Anbalagan *et al*. (2024) found that *Leuconostoc lactis*, *Weisella confusa*, *Weisella cibacria, Lactococcus lactis*, *lactococcus taiwanensis*, *Lactobacillus fermentum*, *Lactobacillus nagelii*, and *Lactobacillus delbrueckii* ssp. *Indicus* all belonging to Lactic Acid Bacteria (LAB) group were identified in the fermented rice water (FRW) which is drained after 12 hrs of fermentation of cooked boiled rice with 10 parts of naturally purified water by using mud pot. These bacteria play a vital role in maintaining the balance of the gut micro biome, which is essential for a strong immune system, efficient digestion, and good overall gut health. It helps eliminate harmful toxins and pathogens while sustaining a healthy microbial balance.

Favours Digestion

The fermentation process initiates the breakdown of starch in rice into simpler compounds, such as sugars and organic acids. This makes kanji gentle on the stomach, particularly for those who are suffering from weakened digestion or recovering from illness. The lactic acid and other compounds produced during fermentation enhance the flavour and make the kanji slightly sour. In addition, the enzymes generated during the fermentation process help make the rice softer and the kanji more digestible. Probiotics in kanji build short-chain fatty acids (SCFAs) that help reduce inflammation in the gut.

Enhances nutrient levels

Fermentation of rice profoundly increases the bioavailability of essential nutrients. On reviewing a clinical study, Ray and Swain (2013) observed a dramatic increase in mineral content after fermenting rice for 12 h *viz.,* iron: Increases from 3.4 mg to over 73 mg per 100 g(21-fold rise) and calcium: Increases from 21 mg to 850 mg per 100 g(40- fold rise). Besides, fermented kanji contained a good amount of B vitamins, including B6 and B12, which are important for energy metabolism and overall health.

Improves hydration

Kanji is an excellent supplier of electrolytes like potassium and sodium, enhancing the ability to fight dehydration and fatigue. Water constitutes a major part of rice kanji, helping to keep the body hydrated, and making it highly suitable for consumption in hot climates.

Reduces inflammation and boosts immunity

In addition, the kanji can reduce systemic inflammation that heals skin conditions such as acne, eczema, and psoriasis. Its detoxifying properties help cleanse the body. The gut micro biota is essential for protein and carbohydrate metabolism, vitamin synthesis, and communication between gut cells and the immune system. It is protected by a mucosal barrier established by gut epithelial cells, which minimizes permeability. Disruptions in gut micro biota-immune system interactions can lead to an overgrowth of harmful gram-negative bacteria, damaging the epithelial barrier and increasing infection risk. Moreover, gut dysbiosis can impair immune responses, resulting in inflammation, oxidative stress, and insulin resistance (Yoo *et al*., 2020). Research indicates that proper gut setup at birth is crucial for immune response development, which can be compromised by factors such as caesarean births. A lack of necessary stimulation, such as infections, can lead to conditions like irritable bowel syndrome (IBS). Additionally, changes in dietary habits, birth practices, and antibiotic use may disrupt gut flora, potentially contributing to increased allergies and autoimmune diseases, paralleling the effects of climate change (Canche-Pool, 2008).

Improves skin health

Rice kanji hydrates and nourishes the skin, promoting a healthy complexion through its vitamins and minerals. It contains antioxidants that combat aging by reducing free radical damage, thereby minimizing fine lines and age spots. Furthermore, its astringent properties tighten pores for smoother skin, while probiotics help reduce inflammation, calming acne and irritations. Additionally, rice kanji lightens dark spots and evens skin tone for a more vibrant appearance.

Improves hair health

Rice water promotes hair health by strengthening, adding shine, and encouraging growth through essential nutrients for hair follicles. It also helps detangle hair for better manageability. Rich in vitamins, minerals, and amino acids, rice kanji enhances nutrient absorption via probiotics and enzymes, while antioxidants protect against environmental damage. Additionally, it can brighten skin tone and reduce dark spots, leading to a more youthful appearance.

Supports detoxification

Probiotic power in rice kanji promotes a balanced gut microbiome, essential for toxin elimination. It supports liver health by reducing its burden during detoxification. Rich in water and fiber, kanji aids hydration and enhances bowel movements, facilitating waste removal. Additionally, its probiotics can help lower inflammation, contributing to overall health and detoxification.

Conclusion

People's increasing dependence on junk and packaged foods is negatively impacting global health, leading to a rise in lifestyle diseases such as diabetes, heart issues, and obesity. In this context, rice kanji has gained recognition as a symbol of traditional home cooking. This dish is low in calories, satisfying, and is sold online for Rs.129 to Rs.139 per 450g pack. Serving as a natural energy drink that boosts stamina, rice kanji evokes nostalgia for shared meals, emphasizing a return to simpler, healthier eating. It is affordable, gluten-free, and offers substantial nourishment, making it suitable for all, especially the elderly and those recovering from illness. Rice kanji's wellness advantages are enduring, positioning it as an essential part of modern diets and wellness practices.

References

Anbalagan C, Nandabalan SK, Sankar P, Rajaram PS, Govindaraj K, Rupert S, Sathyanesan J. (2024). Postbiotics of Naturally Fermented Symbiotic Mixture of Rice Water Aids in Promoting Colonocyte Health. *Bio molecules*. Mar 13; 14(3):344.

Canche-Pool, EB. (2008), Probiotics and autoimmunity: an evolutionary perspective, Medical Hypotheses. Vol. 70, issue 3, pp. 657-660.

Ray. R.C. and M.R. Swain (2013), Indigenous fermented foods and beverages of Odisha, India: an overview. In:V.K. Joshi (Ed.), Indigenous fermented foods of South Asia, CRC Press, USA (2013).

Yoo, J. Y., Groer, M., Dutra, S. V. O., Sarkar, A., & McSkimming, D. I. (2020). Gut Micro biota and Immune System Interactions. *Microorganisms*, 8(10), 1587.

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