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Editorial

RICE: THE GRAIN OF LIFE AND KEY FOR HEALTH

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Abstract

Rice is used as food globally. Besides its use as food, it is also used traditionally as medicine in different ways in different countries. The medicinal potential and possibilities for improvement as medicinal agent has been discussed here.

Keywords: Rice; Nutraceutical; Ayurveda; Genetic; Antioxidant.

Rice is an important and pillar of food in many countries and has been used for various purposes since time immemorial. There are lot of literature talking about quality and varieties of rice. Generally, now a days, people keep a safe stay with rice as it is mainly composed of starch with varied proportion of amylose and amylopectin and has impact on the health status. We can not ignore the traditional medicinal use of rice and its products and by-products.

Let us begin with an extolment by the great sage Parashara on rice in the Sanskrit (an ancient language of India; the language of the Vedas and of Hinduism) text Krishi-Parashara, he said, “Rice is vitality, rice is vigour too, and rice indeed is the means of fulfilment of all ends in life. All, Gods, demons, and human beings subsist on rice” [Majumdar and Banerji, 1960]. This is undoubtedly a remarkable veneration to rice and best expression of its importance as food. We also have an observation made by Jean-Baptiste

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Tavernier, a French traveler and diamond merchant, who visited India in 1646, that wheat-eating people had more strength while rice eaters had more stamina [Ball, 1995; Vir *et al.*, 2005].

Besides food, rice has also been used as medicine in different countries like India, Malayasia, Cambodia, Philippines [Vir *et al.*, 2005]. In India, rice has relished a unique status in Ayurveda as food, as excipient and as medicine. Ancient Ayurvedic treatises laud the *Raktashali* (red rice) as a nutritive food and medicine. The medicinal value of other rice such as *Sashtika*, *Sali*, and parched rice have been documented in the *Charaka Samhita* (c. 700 BC) and the *Sushruta Samhita* (c. 400 BC), in the treatment of various ailments such as diarrhoea, vomiting, fever, haemorrhage, chest pain, wounds, and burns. Different varieties of rice and rice cultivated in different climatic conditions have been used for different purposes because they affect the human body differently, as they possess different inherent qualities. Even today, Ayurvedic practitioners prescribe different rice for various ailments [Watt, 1981]. A detailed review for the medicinal use of rice has been presented by Ahuja *et. al*. [Ahuja *et al.*, 2008] and health benefits of rice by-products by Esa et al. [Esa *et al.*, 2013].

Many researchers tried to verify, in one way or the other, the medicinal values of rice [Goldberg and Saltzman, 1996; Gore *et al.*, 1992; Herber *et al.*, 1999; Ling *et al.*, 2001; Rahman *et al.*, 2006; Zhang *et al.*, 2005]. More recently, Jafari *et al* [Jafari *et al.*, 2014] studied digestive enzymatic activities; Shimoda *et al.* [Shimoda *et al.*, 2015] evaluated the effect of Purple Rice Extract on various diabetes models and so on. Now, we need to think about the possibility of enhancing the medicinal values of rice. This is important so far as the use of rice as nutraceutical is concerned. Such an effort has been made by Umnajkitikorn *et al.* [Umnajkitikorn *et al.*, 2013]; they investigated the possibility of enhancing the antioxidant properties of germinated rice seeds. Both polished and unpolished rice need to be studied for the neutraceutical values irrespective of genetic diversities. Rice available mainly in northeast India, having aroma, containing higher amylopectin content, undergone less explorative studies, which requires attention from the researchers. There are reports of the pharmaceutical utility of such variety of rice alone and in combination with other compounds [Ramteke *et al.*, 2010; Bhattacharya *et al.*, 2010; Ahmad *et al.*, 2012; Sharma *et al.*, 2011, 2013a, 2013b] but, yet to come

with potentiality for commercial use. Not only the content, effect of soil contaminants, manures, pesticides in different cultivated areas also should be studied for short term and long term toxicities. Undoubtedly, genetically modified rice with enhanced medicinal values would be a major contribution for improvement of health, especially for those countries where rice is the major food. This achievement would make rice as the grain of life in real sense.

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