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Postprandial glucose and insulin responses to rice products in normal subjects Jung-In Kim*, Byoung-Wook Kong, Suk-Heui Jung, Sae-Yaun Bae, and Jae Cherl Kim. School of Food Science, Inje University

Rice, a staple in Korea, is consumed in various physical forms. It has been reported that physiochemical characteristics of starchy food could influence blood glucose responses. Postprandial glucose and insulin responses and satiety of rice products, garaeduk, baeksulgi, and cooked rice were studied in 12 normal subjects (mean age 23.2 ± 2.4 years, 6 men and 6 women). Each subject ingested rice product containing 50g of available carbohydrates after an 12-hr overnight fast. Serum glucose and insulin levels were measured at 0-180min. Mean fasting serum glucose and insulin levels were 84.9 ± 8.6 mg/dL and $9.88\pm0.83\,\mu$ U/mL, respectively. Postprandial serum glucose and insulin levels after consumption of the rice products reached a peak at 30min. Garaeduk decreased incremental responses for glucose(1847.6 ±190.2 mg · min/dL) and insulin(2041 $\pm287.0\,\mu$ U·min/mL) significantly compared with baeksulgi(2407.4 ±208.3 mg · min/dL, $3581\pm264.4\,\mu$ U·min/mL). Satiety responses to the rice products were not significantly different. Thus we concluded that garaeduk could be beneficial in controlling postprandial hyperglycemia and hyperinsulinemia.