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Folate content of Korean dishes: Calculated and analyzed values

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Computerized nutrient analysis programs are essential to estimate nutrient intakes of population, and the accuracy is dependent on the nutrient database and the recipe if the program provides calculated nutrients in dish using standard recipe. The Computer Aided Nutritional Analysis Program 4.0 (CAN-Pro) is a software commonly used to estimate nutrient intakes of Korean population. However, the accuracy of folate database is questionable because the values were partially obtained from analysis of Korean foods and partially substituted with the data from other countries. The purpose of this study was to compare folate values in dishes calculated from CAN-Pro with the values from direct analysis. One hundred thirty seven dishes commonly consumed in Korea were collected in restaurants or food stores from 2013 to 2015. Folate was measured in three different laboratories by microbiological assay after trienzyme extraction. The difference ratios of calculated value to analyzed value per serving ranged from 0.2 to 32.6. The difference ratios of 45 dishes were higher than 1.5, and the ratios of 26 dishes were lower than 0.5. When the dishes were classified into 7 groups, the mean difference ratio was the largest as 6.6 in boiled vegetable group, probably because CAN-Pro database was based on the values in uncooked foods. Our results indicate that folate intake of Korean population is likely to be overestimated when it is calculated with CAN-Pro 4.0. Therefore, it is necessary to add folate values of cooked foods in dish in order to accurately estimate folate intake of Korean population.

Biography

Taisun Hyun has completed her PhD from University of Alabama at Birmingham. She is a Professor of the Department of Food and Nutrition in Chungbuk National University. She has been serving as an Editor-In-Chief of "*Korean Journal of Community Nutrition*" and Director of Center for Children's Food service Management.

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