

RELATIONSHIP BETWEEN FOOD INTAKE FREQUENCY AND INCIDENCE OF HYPERTENSION AND HYPERLIPIDEMIA IN ADULTS LIVING IN RURAL AREA OF KOREA

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This study was conducted to examine the relationship between food intake frequency and incidence of hypertension (HT) and hyperlipidemia (HL) in adults in rural area. Food frequency questionnaires containing 65 food items were executed to 2406 subjects over 30 years of age living in Yeonchon-gun, Kyungki province. Frequency of consumption of each food item was divided into 9 categories ranging from 'over 3 times a day' to 'never'. Newly diagnosed hypertensives were identified using WHO criteria among those without previous diagnosis of HT. Newly diagnosed hyperlipidemics were identified as those with fasting serum total cholesterol concentration ≥ 220 mg. For each food items examined, odds ratios for developing HT and HL were calculated for frequent consumers compared to people with low after adjusting for age, BMI and sex. Odds ratios for HT were significantly lower among the frequent consumers of ramyon, breads, rice cakes, onion, mushrooms and other white vegetables, mandarin orange, juice, beef loin, pork belly, egg, laver, sea mustard and candy, while significantly higher for subjects consuming legume, egg plant, zucchini, melon and takju more frequently. Odds ratios for HL were significantly lower among frequent consumers of ramyon, mandarin orange, juice, beer. On the other hand, odds ratio for HL were higher for subjects consuming pear more frequently. Although this was a crossover prevalence study, the results indicate that consumption frequencies of several food items were related with the occurrence of HT and HL in the study subjects. Longitudinal studies are needed to establish any etiologic relationship between consumption of food items and development of HT and HL.