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Nutrition and cardiovascular disease

Nutritional risks of hypertensive outpatients in Korea

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Hypertension is one of the most prevalent chronic diseases in Korea. Analyzing nutritional risks for hypertensive patients is necessary for the implementation of suitable nutrition intervention programs, in order to improve nutritional status, prevent complications, and increase quality of life. A case-control study was administered to compare nutritional risks. A case subject group of 592 (male 178, female 414) with hypertension, and a control group of 123 (male 48, female 75) without diagnostic evidence was recruited at 3 outpatient clinics and 2 community health centers in Korea. Their mean age was 64.5 years and their mean body mass index was 24.9kg/m². Differences in nutritional, dietary, and possible sociodemographic risk factors were assessed using questionnaires. Trained dietitians interviewed subjects to collect demographic, eating behaviour, and health factor relative information. Dietary intake data were also collected using a validated 98-item food frequency questionnaire. Statistical analyses were performed using SAS (ver 8.1). The hypertensive patient subjects and control subjects were not significantly different with respect to age and body mass index. For male hypertensive subjects, there were no significant differences in nutrient intakes in comparisons made with the male control group. However, female hypertensive subjects consumed less energy, calcium, iron, niacin and riboflavin in comparisons made with the female control group. Mean nutrient adequacy ratios, which reflect the quality of nutrient intake were also lower in the case subject group than they were in the control group. In hypertensive subjects, the 'Old-age' (age over 65 years), and 'Overweight' showed no risk for poor nutrition. 'Inadequate Living Expenses', 'Lower Education Level', 'Lack of Physical Exercise', 'Use of Dentures', 'Indigestion', 'Diet Non-modification', 'Lack of Nutrition Knowledge', and 'Depression' were strong variables that affected poor nutrient intake. However, 'Living Alone', 'Meal Skipping', 'Lack of Appetite', and 'Stress Level' were not associated with nutritional risks. This information is useful for effectively screening hypertensive patients who need careful nutrition management and an appropriate nutritional intervention program.

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