

【P2-8】

Relation of fasting insulin level to the age, dietary intake, physical activity, and anthropometry in elderly females with normal glyceemic control

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High insulin level is known to be a risk factor of coronary heart disease. High insulin level with normal glyceemic control is known to be an indicator for insulin resistance. This study was aimed to find out the influencing factors for the fasting serum insulin levels in elderly females with normal glyceemic control. One hundred thirty-eight older females aged over 60 years without diabetes medication and high blood HBA1c level were tested on the fasting insulin concentration in serum, anthropometry and asked about nutrient intake and exercise habits. The elderly were categorized into 3 group according to fasting insulin level. The high insulin group showed hyperinsulinemia. Except vitamin C, the nutrient intakes showed no difference according to fasting serum insulin level. But the intakes of calorie and protein per body weight were significantly lower in the high insulin group. The intakes of energy, vitamin A, B₂, and Ca were lower than the korean RDA in all the insulin group. Especially, the intakes of vitamin B₂ and Ca showed under 75% of the korean RDA. Weight, BMI, body fat percent, body fat mass and fat-free mass, circumferences of waist and hip, WHR of elderly females were significantly higher in the group with the highest insulin level. The body fat percent in the highest insulin group was 35.8%. showing a state of obesity. The exercise frequencies per week, duration hours per time, and energy expenditure for exercise were lower in the highest insulin group, showing a state of very low exercise activity in this group. Multiple stepwise regression showed 14.5% of the fasting insulin level variation can be explained with age and waist circumference in female elderly. It can be concluded that the determining factors of the serum fasting insulin level in female elderly with normal glucose level are age and central body fat deposition.