The Relationship of Dietary Compliance, Magnesium Consumption, and Stress Levels with GDP Leveles in Type 2 Diabetes Mellitus Patients

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ABSTRACT

Diabetes Mellitus (DM) is a metabolic disease with impaired insulin secretion which occurs because the body's cells are unable to produce enough insulin so that glucose cannot enter the body's cells and causes blood sugar levels to increase. Diet management for type 2 DM sufferers must pay attention to dietary compliance in accordance with 3J (Amount, Schedule, Type). In addition, magnesium consumption and stress levels are important factors in influencing blood sugar levels. This study aims to determine the relationship between diet compliance, magnesium consumption, and stress levels on Fasting Blood Glucose (FBG) levels. This type of research is cross-sectional research. Subject recruitment techniques use purposive sampling with a sample of 97 people. The instrument used is a form of food recall 24 jam, Food Frequency Questionnaire (FFQ), Semi-Quantitative Food Frequency Questionnaire (SQ-FFQ), and questionnaires Perceived Stress Scale (PSS). Statistical analysis uses chi-square tests. Results of research on diet compliance (p=0.000; OR= 25.3), frequency of magnesium consumption (p=0.000; OR= 22.5), amount of magnesium consumption (p=0.000; OR= 61.5) and stress level (p =0.239). The results of multivariate analysis showed that the amount of magnesium was the strongest risk factor with a value of (p= 0.001; OR= 123.2). The conclusion of this research is that there is a relationship between diet compliance and FBG levels, there is a relationship between the frequency of magnesium consumption and FBG levels, there is a relationship between the amount of magnesium consumption and FBG levels, and there is no relationship between stress levels and FBG levels.

Keywords: *Diabetes Mellitus, Frequency of Magnesium Consumption, Amount of Magnesium Consumption, GDP Level, Dietary Compliance, Stress Level.*