

The Relationship between Consumption of Food Sources of Antioxidants, Trans Fat, and PUFA with FBS Levels in Type 2 DM Patients

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ABSTRACT

Diabetes mellitus is a chronic disease that occurs due to impaired insulin secretion, causing hyperglycemia or increased glucose levels in the blood. Consumption of antioxidants, Polyunsaturated Fatty Acid (PUFA) and trans fats are risk factors that can affect blood glucose levels. This study aims to determine the relationship between consumption of food sources of antioxidants, trans fats and PUFA with FBS (Fasting Blood Sugar) levels in type 2 DM sufferers. This type of research is cross sectional. The sampling technique used purposive sampling with a sample of 97 people. The instruments used are Semi-Quantitative Food Frequency Questionnaire (SQ-FFQ). Statistical analysis using Chi-Square. Research results based on antioxidant consumption; frequency of vitamin C consumption ($p=0,542$), the intake of vitamin C consumption ($p=0.481$), frequency of vitamin E consumption ($p=0.373$), the intake of vitamin E consumption ($p=0.123$), frequency of beta-carotene consumption ($p=0,000$; $OR=128$), the intake of beta-carotene consumption ($p=0.000$; $OR=83$); frequency of trans fat consumption ($p=0,000$; $OR=10.7$), intake of trans fat consumption ($p=0.000$; $OR=272$); frequency of PUFA consumption ($p=0.020$; $OR=3,1$). The conclusion of this research is that there is a relationship between the frequency and intake of beta-carotene consumption and FBS levels, there is a relationship between the frequency and intake of trans fat consumption and FBS levels, there is a relationship between the frequency and intake of PUFA consumption and FBS, and there is no relationship between the intake and frequency consumption of vitamin C, vitamin E, PUFA with FBS levels.

Keywords : *Diabetes Mellitus, Antioxidant Consumption, Trans Fat Consumption, PUFA Frequency, FBS Levels.*