Impact of dietary fatty acids on lipid profile, insulin sensitivity and functionality of pancreatic \( \beta \) cells in type 2 diabetic subjects

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Introduction: the quality of fats could influence the metabolic control of patients with Type 2 Diabetes Mellitus (DM2). Objectives: to determine the relationship between intake and quality of dietary fatty acids to lipid profile, metabolic control, functionality of pancreatic \( \beta \) cells and insulin sensitivity in subjects with DM2. Methods: we studied 54 subjects with DM2, anthropometric measurements were performed, body composition and dietary lipid intake, saturated fatty acids (SFA), trans, monounsaturated, polyunsaturated, omega 3, omega 6 and dietary cholesterol. Laboratory parameters related to their metabolic control were determined (fasting blood glucose, glycated hemoglobin, and lipid profile). The insulin secretion and insulin sensitivity was determined with the insulin-modified intravenous glucose tolerance test according to the Bergman’s minimal model. Results: 28 men and 26 women were studied (BMI of 29.5 ± 3.7 kg/m\(^2\); age 55.6