Abstract

No nutritional protocol for poorly controlled diabetic patients receiving well-managed drug treatment is currently available. Objective: Aims were to compare dietary consumption of calcium and fibers with lipid profile and glycosilated hemoglobin HbA1c. Methodology: This was a prospective observational study. Patients with poorly controlled diabetes were consecutively recruited. A food-frequency questionnaire and tests for lipid profile, HbA1c, and C reactive protein were collected, along with clinical and anthropometric assessment. Results: Patients (N = 114, age 65.7 ± 6.5 years, 75.4% females, BMI 29.0 ± 5.3 kg/m²) were often insulin-dependent (32.5%) and with systemic inflammation (C-reactive protein 4.2 ± 3.9 mg/L). Diet was energy restricted (1,365 ± 565 kcal/day) and mostly adequate but with suboptimal fiber (15.4 ± 8.6 g/day) and very low calcium (592.4 ± 204.4 mg/day). \textit{Calcium} and \textit{fiber} in the diet correlated with serum lipids, whereas \textit{fiber} alone displayed a protective association regarding diabetes (HbA1c, insulin use) and arterial hypertension. Conclusions: Calcium and fiber ingestion exhibited correlations with important markers of metabolic status and cardiovascular risk. Future studies should address enhancement of these ingredients by means of dietary changes and supplements.

Keywords
Calcium, Fibers, Uncompensated diabetes, Type 2 diabetes, Elderly patients, Food frequency questionnaire.