

Abstract

Introduction: Diabetic neuropathy is a chronic complication of diabetes that decreases the quality of life of diabetic patients, mainly because there is currently no effective treatment for diabetic neuropathy and it increases the risk of developing other complications (e. g. diabetic foot syndrome). The development of late complications of diabetes can be delayed by preventive practices, and therefore, it is necessary to focus on prevention and raise awareness among patients about the possible complications associated with diabetes and how to prevent them.

Objectives: The aim of this study was to investigate whether lifestyle and dietary habits differ between patients with type 2 diabetes with diabetic peripheral neuropathy and those without diabetic peripheral neuropathy.

Methodology: Data collection was done using a self-administered questionnaire with a weekly dietary record. The questionnaire also included a validated sensorimotor neuropathy questionnaire. The questionnaire was distributed on the social media to a closed group of patients with DM2T and was personally offered to patients from the III. Department of Internal Medicine - Endocrinology and Metabolism of the 1st Faculty of Medicine of the Charles University in Prague, specifically at the VFN Clinic in the ambulance of Obesity and Diabetology. A total of 19 respondents with DM2T were included in the study and divided into two groups. The research group consisted of respondents with DPN. This group consisted of 7 respondents and dietary record was obtained from 5 of them. The control group consisted of 12 respondents and the dietary record was from 9 of them. The dietary record was obtained through the "Čas pro zdraví" app and the "Kalorické Tabulky" app. The obtained data was then processed and evaluated.

Results: Statistically significant differences included age in each group, duration of DM2T, and scores on a sensorimotor neuropathy questionnaire. The mean age in the research group was 71.43 ± 11.37 years and the mean age in the control group was 59.8 ± 9.7 years. The mean duration of DM2T in the research group was 23.6 ± 8.6 years and in the control group was only 12.6 ± 8.8 years. The mean score for the presence of neuropathy was 1.37 ± 0.11 for respondents with DPN and 1.85 ± 0.13 for respondents without DPN. Respondents in the research group engaged in less physical activity than those in the control group. There was only one active smoker and 9 ex-smokers in the whole cohort. All respondents reported that they knew the dietary guidelines, but according to the analysis of the dietary records, they tended not to follow them in practice. Deficiencies in dietary measures were mainly in the intake of fibre, fruit, vegetables, fish, legumes, milk and fermented dairy products, and in contrast increased consumption of processed meats. There was low dietary variety and repetitive foods in the research group.

Conclusion: Although this is a small sample size, the results indicate that diabetic peripheral neuropathy reduces quality of life, but the results do not clearly show that diabetic peripheral neuropathy affects the dietary habits of patients. However, the results indicate that patients have a theoretical awareness of dietary measures but do not follow them in practice; therefore, nutritional intervention should still be emphasised, as shown by the results of the analysis of the menus, which indicated a lack of adherence to dietary measures. Diet and nutrition are an integral part of successful diabetes treatment.

Keywords: type 2 diabetes mellitus, diabetes complications, diabetic neuropathy, nutrition, education