

Abstract

Diabetic foot syndrome is a serious chronic complication of diabetes mellitus, caused by a number of factors such as neuropathy, angiopathy, infection, and above all, this syndrome is consequence of a poor diabetes compensation and cardiovascular risk factors. It is characterized by particularly impaired wound healing and a higher tendency to chronicity, which can often be a reason for disability of the patient. Nutrition plays a very important role in a patient hospitalized with diabetic foot syndrome, as adequate coverage of energy and nutritional needs is essential for successful treatment and healing of ulcers.

The theoretical part of this diploma thesis first mentions diabetes mellitus, its basic characteristics and briefly describes the types of diabetes that are associated with diabetic foot syndrome. Acute and chronic complications of diabetes are also discussed, followed by a more extensive chapter on the diabetic foot syndrome itself. This is the very definition of the term, epidemiology, pathogenesis, classification, diagnosis, treatment and prevention of this syndrome. The last chapter deals briefly with general nutritional recommendations for diabetics and the nutritional status of patients in which they are most often found when they are admitted to hospital, which is malnutrition, obesity and sarcopenic obesity.

The aim of the thesis was to find out by retrospective analysis the correlation of nutritional status, nutritional risk of patients, with the degree of Wagner's syndrome of diabetic foot and subsequently the correlation between the degree of Wagner itself and the length of hospitalization in diabetic patients. In addition, the correlation between diabetes compensation, the presence of neuropathy and the degree of Wagner was examined.

A total of 88 patients (68 men, 20 women), mostly the elderly, with diabetic foot syndrome from the 2nd Internal Medicine Dept. of the FNKV and the 3rd Medical Faculty of Charles University were selected for the final statistical evaluation. These were patients who were hospitalized in 2015–2017. The necessary data were written from archived medical records into a pre-prepared sheets, which contained 64 items divided into 6 sections. Data were provided regarding general patient and hospitalization information, a shorter version of the medical history, laboratory findings, podiatric history, and nutritional risk of the patient.

All patients had diabetic foot syndrome, 92 % of patients suffered from neuropathy and ischemic lower limb disease 77 %. A history of arterial hypertension was also common in 81 % of patients. Higher values of glycosylated hemoglobin (above 60 mmol/mol) almost had half of the patients. 46 % of patients came to hospital with the third degree of Wagner and 44 % with the fourth degree. According to the FNKV nutritional screening score, the vast majority of patients were not in a risk of malnutrition. Statistically significant relationship between nutritional status and Wagner's degree was shown (p -value = 0.0012). There was no significant relationship between diabetes compensation and the degree of Wagner (p -value = 0.8126). The same applies for the relationship between the presence of neuropathy and the degree of Wagner (p -value = 0.1977). On the other hand, statistically

significant relationship was shown between the degree of Wagner and the length of hospitalization (p-value = 0.0388).

To conclude, patients who have been admitted to hospital at FNKV are admitted with an advanced stage of diabetic foot, which is related to their longer stay in the hospital. The vast majority of patients have not been evaluated by nutritional screening as patients at nutritional risk, but the reality may be elsewhere, due to imperfect screening of individuals with sarcopenic obesity.

Key words: Nutritional status, diabetic foot, diabetes mellitus, malnutrition