ABSTRACT

Introduction: This bachelor's thesis focuses on the compensation of type 1 diabetes during and after physical activity. It is important to understand the effect of insulin, be familiar with food's glycemic index or glycemic load and primarily perform selfmonitoring, in order to prevent hypoglycemia.

Object: The aim of this study is to find out, how physical activity affects glucose level and insulin consumption, find out whether athletes with 1 type DM can correctly estimate insulin dosage and glucose income before and during and after physical activity.

Methods: Obtained information were arranged in case interpretation in tables for three patients with 1 DM, each table describes day's course of patients, information of glucose levels, insulin dosage, calorie intake and type of physical activity.

Results: Patients with 1 type diabetes are aware of the need to adjust insulin dose before exercise, but they aren't certain, how to achieve it correctly. Taking too much insulin effectively causes hypoglycemia, one patient had 4 hypoglycemia in one day.

Conclusion: Sometime it is very difficult to recognize hypoglycemia during exercise, but it is important to prevent hypoglycemia and its complications.

Keywords: 1 type diabetes, diabetes and physical activity, hypoglycemia during and after exercise, insulin therapy.