

Abstract

Introduction: Type 1 diabetes mellitus is an autoimmune disease, which often disrupts normal regime during the life of the patient. During the day there are fluctuations in blood glycaemia levels, so a very important part of therapy is so called self-monitoring, in which the individual is continually monitors his own blood sugar level. Using self-monitoring of blood glycaemia can demonstrably improve diabetes control. With the advent of new technology, such as sensors, insulin pumps and others patients are, in their cooperation, enable to optimize the regime during normal life.

Objectives: Monitor glycaemia at patients with type 1 diabetes mellitus in the last trimester of pregnancy and after childbirth. Determine the change in HbA1c during pregnancy and after childbirth, compared to previous years. Identify, describe and evaluate situations and errors of the patient that affect the blood glucose fluctuations and monitor insulin requirments. Furthermore, closely monitor three days before and two days after childbirth, depending on diet and physical activity.

Methods: Data were collected using records from sensors in the program CareLink® Personal of company Medtronic, from diet regimen of program Kalorické tabulky and exercise activity from program Evito.cz and informations about HbA1c were identify from diabetic medical reports.

Results: HbA1c values were observed from 70 to 90 mmol / mol (2012 – 2014). Before pregnancy (2015) improved HbA1c 50 mmol / mol. Thanks to the CGM control of diabetes during pregnancy was excellent, the values of HbA1c ranged from 38 to 46 mmol / mol. After childbirth (April 2016) was measured HbA1c 47 mmol / mol, again, we can talk about good diabetes control. Insulin requirements during the third trimester of pregnancy were 2-3 times higher than after childbirth. Evaluation of diet regimen showed that diabetic patient received insufficient amount of energy and essential nutrients.

Conclusion: CGM is a suitable choice especially during pregnancy when there is often unexpected fluctuations in blood glucose. Increased care and glycemic control in this period necessary to avoid possible complications and risks for mother and child. The patient managed through CGM to react very quickly to decrease or increase in glycaemia and so prevent larger fluctuations.

Keywords: Diabetes mellitus, type 1 diabetes, diabetes mellitus and gravidity, self-monitoring, insulin, glycemia

