ABSTRACT

Diabetes mellitus 2nd tipe is heavy and very frequent civilizing disease in our population. The disease is characterized by hyperglycemia and other metabolism abnormalities are prezent. Assesment of glycemia in plasma (serum) is used for a diagnostics of the disease. Indicator of long-term compensation of diabetes is glycosylated haemoglobin.

There were monitored possible dependensies between biochemical indicators in this work that are assesmented to diabetic patiens commonly. The dates were analyse from 54 diabetic patiens between the ages of 40 to 82 who visit a diabetic clinic periodically. The samples were analyzed by Cobas Integra 800 analyzer by Roche (Germany). Glucose in serum and in urine was analyzed by enzymatic metod with hexocinase and glycosylated haemoglobin was analyzed by imunochemical metod based on thurbidimetric inhibition in haemolysed blood. Paerson´s correlative coefficient was used for appreciation of dependencies between variables.

The highest correlative coefficient was found between glucose measuring in morning urine and glucosic losses by urine for 24 hours. Statistically important correlation were also found between glucose in serum and in urine or glucosic losses by urine for 24 hours and between glucose in serum and glycosylated haemoglobin. Because of relatively few samples this dependence wasn´t fully in keeping with literature dates. According to premise the dependence was closest in the case of linear regression between acute glycemia and the values of glycosylated haemoglobin which was measured approximately 3 mouth before. The volume of collected urine not correlate with no monitored biochemical parameter. Correlation wasn´t prove between glycosylated haemoglobin and glucose in urine or glucosic losses by urine for 24 hours.

The results of this work confirm dependence between glycosylated haemoglobin and glycemia, which is higher in assesment of glycosylated hemoglobin after 3 months from measuring of glucose. Correlation was also confirm between glycemia and glucose in urine, which was higher when glycemia was over 10 mmol/l which is a renal treshold for excretion of glucose. The main piece of knowledge resulting of this study is the fact that for quantitative analysis of glucose in urine is fully sufficient one-shot sample of morning urine.