

ABSTRACT

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Title of master thesis: Relation among BMI, hyperinsulinemia and selected biochemical indicators

This thesis is focussed on specification of relations among BMI, insulinemia, age of the patients, C-peptid blood levels and glycemia and also searching relations among selected parameters of lipid spectrum in group of selected patients.

Measuring of body height and weight and investigation of fasting glycemia, insulinemia, total cholesterolemia, blood levels of HDL and LDL and also C-peptid were done at 3472 patients. Afterwards few basic indexes of insulin resistance and sensitivity were counted.

In this group was proven, that fasting insulinemia and C-peptid levels are increasing in according to increasing BMI. Also fasting glycemia is increasing modestly. Insulin resistance and sensitivity indexes used in this theses depends on BMI. Although statistically significant differences between age groups were proven according to insulin resistance and sensitivity indexes, we can't see clearly increasing or decreasing tendency in according to increasing age. In this group HDL is only slightly indirectly dependent ($r=-0,3349$, $P<0,001$) on fasting insulinemia and LDL is slightly directly dependent on fasting insulinemia ($r=0,1224$, $P<0,001$). Relation among hyperinsulinemia and total cholesterolemia and levels of HDL and LDL wasn't proven. Spearman's coefficient of this correlation is lower than 0,1.

Key words: BMI, HYPERINSULINEMIA, INSULIN RESISTANCE, C – PEPTIDE