

P012 BIOCHEMICAL INDEXES IN 2-TYPE DIABETES PATIENTS WITH OVERWEIGHT AND OBESITY

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The aim of the study was to compare biochemical indexes of the oxidative stress in type 2 diabetic patients regarding body weight.

Methods: In this study 1) 16 diabetics-mean age- 64.6 ± 6.27 ; BMI- $20-24.9$ kg/m². 2) 10 overweight diabetics-mean age- 64.0 ± 8.9 , BMI- $25-29.9$ kg/m². 3) 15 obesity diabetics-mean age- 66.6 ± 7.1 , BMI- $30-40$ kg/m² and 30 healthy controls-mean age- 64.2 ± 5.8 , were evaluated for blood glucose, HbA1C, lipid peroxides/LP/, superoxide dismutase activity/SOD/, and the total antioxidative capacity of the serum/TAOCS/. Mean values are shown, with standard deviations (S.D.). The significance of the mean values was assessed by Student-Fischer method.

Results: The LP levels in the first and second groups are close to the controls. The LP means value in the third group was significant elevated as compared to controls- 3.01 ± 0.62 v/s 2.16 ± 0.76 nmol/l. The levels of the SOD were not statistically different. The TAOCS was 18.5 ± 5.21 ; 19.39 ± 4.53 and 19.62 ± 3.36 nmol/H₂O/ml/min⁻¹ respectively and lower in the control group- 14.48 ± 7.0 .

Conclusions: This study clearly shows that obese people suffering from type 2 diabetes mellitus and BMI over 30 the process of lipid peroxidation is more pronounced. We assume that the higher values of the TAOCS in the diabetics are a result of the adequate treatment and recommended the LP index for evaluation of the oxidative stress situation.