

Lipid status in patients with diabetes mellitus type 1 from various ethnic groups

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Background and aims: Diabetes mellitus type 1 (T1DM) is the most severe form of Diabetes mellitus with clear clinical presentation and pronounced metabolic disturbances, which explains the virtually perfect registration of the patients. Some studies reported low T1DM morbidity rate among the aboriginal people in Arctic and Siberian peoples resulted from the presence of the protective alleles for this nosology. The aim of this study was to compare lipid status in Mongoloids and Caucasians with T1DM.

Method: The study recruited the patients with T1DM: Mongoloids (n=38, mean age 34.4 ± 1.9 years, disease duration 12.0 ± 1.5 years) and Caucasians (n=27, mean age 32.7 ± 2.3 years, disease duration 12.9 ± 2.0 years), which were the residents of Siberian. The control group was comprised of practically healthy persons that had no congenital diabetic history: Mongoloids (n=34, mean age 30.3 ± 1.3 years) and Caucasians (n=23, mean age 27.1 ± 1.9 years).

Results: Thus, T1DM Mongoloid patients had significantly lower total lipids value in comparison with Caucasian patients. In addition, T1DM Mongoloid patients were characterized with significantly lower levels of triglycerides, total cholesterol and low-density lipoproteins in comparison with Caucasian patients. It should be stressed that despite the absence of significant differences in atherogenic coefficient between the patients in two ethnic groups, atherogenic coefficient in Caucasian patients surpassed the normal value. Elevation of this parameter is an important prognostic factor for the course of diabetes, because dislipidemia promotes the development of morphological alterations in the basal vascular membrane and the hemodynamic disturbances leading to generalized angio - and neuropathies.

Conclusion: We can conclude a more favorable course of the lipid metabolic processes in Mongoloids in comparison with Caucasians.