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**THE RISK OF THE DEVELOPMENT TYPE 1 DIABETES MELLITUS: IMMUNOLOGIC AND HORMONAL MARKERS**

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The clinical manifestation of type 1 diabetes mellitus preface by the long term prediabetes stage, characterising by occurrence of anti-islet antibodies and insulin secretion disturbance. The aim of this study was evaluate the risk of type 1 diabetes mellitus among the children possesses the anti-islet immune markers (ICA, anti-GAD, IA2, IAA) and determine prognostic sense of the C-peptide's (Cp) level evaluation.. From 88 children in prediabetic stage (Me of the observation time 52months.), have been selected 8(9.1%) kids (mean of age $10.5\pm 8.9$ ) in case which the clinical symptoms of type 1 diabetes mellitus appears during the observation (mean 30 months). The ICA were determined by indirect immunofluorescence, anti-GAD, IA2 and by RIP. The level of C-peptide was estimated by radioimmunoassay. Presence of all kinds of antibodies was found in 37.5%(3/6). Three antibodies types (except IAA) were detected in 25%(2/8). The antibodies pairs: ICA/anti-GAD also ICA/IA2 were found in two cases. There was no any antibodies presence in case of one. The analysis by Kaplan-Meier method showed the pEFS=0.55 after 92 months of observation. There were differences in C-peptide levels between group of children with IDDM and all other children (0,34vs0.67pmol/ml,  $p<0.001$ ). This fact let to calculate the hormone level lower below that the risk of type 1 diabetes mellitus development dramatically increase. By ROC method the boundary level of C-peptide on 0.45pmol/ml was established. In prediabetic stage increasing humoral reaction and lower concentration of C-peptide precede the clinical manifestation of the type 1 diabetes mellitus.

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