Screening for antibodies, associated with autoimmune liver diseases in children with celiac disease

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Objective. To determine the prevalence of autoimmune liver diseases in children with CD.

Methods. We observed 45 children aged 3 to 16 years. CD in all patients was diagnosed according to the ESPHGAN criteria. Serological examination with the determination of antibodies to tissue transglutaminase (anti-tTG IgG, IgA); histological examination of the duodenal mucosa; genetic typing for HLA-DQ2/DQ8 were carried out. Duodenal histology having Marsh grade III features were eligible for the study. Antibodies to hepatic antigen cell nuclei, skeletal muscle, cell nuclei, mitochondria, smooth muscles of IgG class were determined by indirect immunofluorescence (nRIF) using reagent kits. The antigen were biochips of primate's liver, primate's musculus iliopsoas, human Hep2 epithelial cells, liver, kidney, and stomach of rats.

Normal titer < 1:80. Anti-Parietal Cell Antibody (PCA), IgG was determined by nRIF using biochips primate's stomach as antigen. This kit of reagents detects antibodies for the diagnosis of such diseases as autoimmune hepatitis (AIH) 1, 2 and 3 types, primary biliary cirrhosis, primary sclerosing cholangitis (PSC), overlap syndrome (combination of AIH and PSC), autoimmune gastritis.

Results. We didn't obtain elevated levels of antibodies associated with autoimmune liver disease in all children with CD. In 1 person we observed elevated levels of anti-parietal cell antibodies. It was a 15-year-old girl with a typical form of celiac disease, additionally suffering from primary oligomenorrhea, autoimmune diabetes mellitus (type 1). Further examination revealed non- Helicobacter pylori atrophic gastritis. Thus, autoimmune gastritis was diagnosed.

Conclusion. Antibodies, associated with autoimmune liver diseases were uncommon in children with CD. Probably, due to insufficient number of participants of the study. On the other hand, anti-parietal cell antibodies have been found.