



surveyed children, HP-associated gastritis is characterized by severe infiltration of polymorphonuclear leukocytes own plate and mostly pit epithelium. Dystrophic and even necrotic epithelial changes that precede infiltration prevail at Pylori gastritis. White blood cells infiltrate already damaged, epithelium gastritis not associated with HP in 10 surveyed children, the inflammatory infiltration of the epithelium is much more pronounced than in their own plate. The results suggest that the magnitude of infection increases parallel degree of morphological changes, which necessitates a compulsory morphological study of the mucous membrane of the stomach and duodenum in case of chronic gastroduodenal pathology in children. Endoscopic study allows to detect even small changes of the structure of gastric and duodenal mucous membrane and in its various parts which are difficult to reach, accessible to X-ray cardiac, subcardiac regions of the stomach, pyloric channel and postbulbar part of duodenum, to take biopsy material of mucous membrane of the ulcers boundary zone, and the ulcer itself as well as mucosa that looks intact, for morphological and other investigations.

Thus, morphological study of diseases in pyloroduodenal zone in children nowadays remains the "gold standard" in diagnostics of the pathology of digestive tract.

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### **GLYCATED HEMOGLOBIN LEVEL IN CHILDREN WITH DIABETES MELLITUS TYPE I IN CHERNIVTSI REGION**

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Diabetes mellitus (DM) is an etiologically heterogeneous group of metabolic diseases characterized by chronic hyperglycemia due to impaired secretion or action of insulin, or a combination of these disorders. In diabetes, there is a disruption of carbohydrate, fat and protein metabolism due to a breakdown of insulin effect on the target tissue.

Over the past decades, an epidemic of diabetes mellitus (DM) has been observed in the world, which is one of the most important problems of modern medicine. Diabetes mellitus takes the third place in terms of early disability and mortality in the advanced world.

In Ukraine, the incidence rate of diabetes among children 0-17 years old increased by 45% - from 0.11 in 2010 to 0.16 in 2016 per 1000 population. Among children 0-6 years old, the prevalence rate increased by 57% and in the age group of 7-14 - only by 15%. It is predicted that by 2025 the incidence of diabetes in Ukraine will reach 10.8% (in Europe as a whole - 9.1%).

The aim of our study is to study the levels of glycated hemoglobin as an indicator of glycemic control depending on age.

The analysis of the level of glycated hemoglobin in 186 children with type I diabetes mellitus, who are registered in the Chernivtsi region has been conducted. All children were divided into three groups depending on age: group 1 - 0-6 years old (40 children), group 2 - 7-14 years old (84 children) and group 3 - 15-18 years old (62 children). Four subgroups were distinguished in each group depending on the level of glycemic control (ideal level (glycated hemoglobin (HbA1c) up to 6.0%), optimal (HbA1c 6.05-7.5%) and suboptimal (HbA1c 7.6-9, 0%) level, and the level of glycemic control with a high risk to life (HbA1c more than 9.0%) according to the protocol No. 254 of the Ministry of Health of Ukraine dated 04/27/2006).

Among all children, the ideal level of glycemic control was observed in 15 children (8.0%), optimal in 51 children (27.4%), suboptimal in 64 children (34.4%) and with a high risk for life in 56 children (30.2%).

In patients of the first group, the HbA1c level averaged 7.43%. Of these, the ideal level of glycemic control was observed in three children, the optimal in 17, the suboptimal in 14, and life high-risk indicators were found in 6 patients.

Patients in the second age group had an average HbA1 level of 8.27%. Of these, the ideal level of glycemic control was observed in eight children, the optimal in 22, suboptimal in 32, and life high-risk indicators were found in 22 patients.



In patients from the third group, the level of HbA1c averaged 9.30%. Of these, the ideal level of glycemic control was observed in four children, the optimal - in 12, suboptimal - in 17 and indicators of high risk for life were found in 28 patients.

So, in 66 children (35.4%) of the Chernivtsi region, ideal and optimal levels of glycemic control were found, which minimizes the risk of acute and chronic complications. Suboptimal glycemic control was found in 64 children (34.4%) and glycemic control with a high risk for life was found in 56 children (30.2%). The largest number of children with HbA1c levels above 9.0% was observed in the second and third age groups (26.9%), which is associated with the puberty period, the rapid growth of the child, and a decrease in the sensitivity of peripheral tissues to insulin.

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### **IS PEDIATRIC ASTHMA CAREGIVER'S QUALITY OF LIFE QUESTIONNAIRE A USEFUL TEST FOR ASTHMA CONTROL ASSESSMENT IN SCHOOL-AGE CHILDREN?**

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Bronchial asthma is the most common chronic disorder of airways in children and adult in the last decades. It is considered as medical, social and economical problem in worldwide. Persistence of asthma symptoms leads to missing children at school, adults at work, limitation of habitual physical activity, emotional lability, unplanned visits to doctors, hospitalizations. All above reduce the quality of life of children which suffering from bronchial asthma, their parents (caregivers) and adult patients.

A lot of questionnaires have been developed to evaluate the level of control of bronchial asthma symptoms however they are subjective and do not always adequately assess the level of control among children. Assessment the quality of life indirectly determines the level of bronchial asthma control.

The aim of investigation was identified relationships between asthma control questionnaire and the questionnaire to assess the quality of life of parents of patients with bronchial asthma to improve the diagnostic of the level of asthma control in school-age children.

On the base of the Children Clinical Hospital (Chernivtsi) were observed 64 children who are suffered from bronchial asthma. According to the age of patients two clinical groups were formed. The first (I) group included 24 patients aged 6-11 years, the second (II) group was formed of 40 adolescents from 12 to 18 years. The clinical groups were compared by gender, place of residence, severity and duration of illness. The «Asthma control test» (ACT) was used to determine the level of control. The quality of life of parents of children which suffering from bronchial asthma assessed by the «Pediatric asthma caregiver's quality of life questionnaire» (PACQLQ).

According to the results of the ACT the average value of the scores was 16.3 (95% confidential interval (CI) 14,3-18,3) in patients of I clinical group versus 15.6 (95% CI 14.2-16.5) ( $P>0.05$ ) in older school-age children( $P>0,05$ ).

There were no differences in the comparison groups according to the results of the parents' responses to PACQLQ. The mean PACQLQ for parents of primary school-age patients was 3.4 (95% CI 3.1-3.8), points, for parents of children in II clinical group II the average value of the score was 3.5 (95% CI 3.1-3.9).

The correlation analyses of ACT and PACQLQ was found that patients and their parents of the first clinical group had a direct significant relationship ( $r = 0.64$ ,  $P < 0.05$ ). At the same time, this correlation was lost among adolescents and their parents ( $r = 0.29$ ,  $P > 0.05$ ).

Thus, the PACQLQ advisable to use for assess the level of bronchial asthma control in primary-school children to optimize the diagnostic of asthma symptoms monitoring.