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Extra-Gastric Manifestations of Helicobacter Infection Stages of Diagnosis and Treatment

Khudayberganova N.H., Rakhmatullayeva G.K., Azimova M.M., Tagayeva M.H.
Tashkent Medical Academy, Tashkent, Uzbekistan

Annotation. The article presents the results of a survey of 105 children with pathology of the gastroduodenal zone, which was mainly combined with pathology of the biliary tract. The characteristic features of the anamnesis of these patients are given, the analysis of the diagnostic value of various symptoms detected by palpation of the anterior abdominal wall is carried out. The issues of verification of Helicobacter pylori infection using the Helik respiratory test, bacteriological and molecular genetic methods for analyzing biopsy specimens of the duodenal mucosa and duodenal contents are considered. It has been proven that Helicobacter pylori is less common in children with isolated forms of chronic gastroduodenitis (CGD) and biliary tract dysfunction (BDBD), compared with children with an organic lesion of the biliary system in the form of chronic cholecystocholangitis, which requires verification. Helicobacter pylori in the primary diagnosis of infection and subsequent etiotropic therapy.

Key words: chronic gastroduodenitis, combined pathology of the biliary tract, palpation of the anterior abdominal wall, Helicobacter pylori infection.

In recent years, there has been not only an increase in diseases of the digestive organs, but also a change in their structure and pathomorphosis - the predominance of pathology of the upper gastrointestinal tract, leveling of gender differences in the incidence of cholelithiasis, peptic ulcer of the stomach and duodenum (duodenum), combined damage to hepatobiliary organs. and the gastroduodenal region [1]. In childhood, this group has been ranked 2nd among all pathologies for many years, and the exhausted morbidity, taking into account the results of medical examination, is 3 times higher than according to appeals [2]. In preschoolers of a large city, family history, antenatal history, neonatal pathology, alimentary profile, intranatal and environmental risks were identified as priority risk factors for gastrointestinal pathology in descending order of importance [3]. The largest part of the lesions of the digestive organs falls on chronic inflammatory diseases of the upper digestive tract: chronic gastritis and gastroduodenitis (CGD), gastroesophageal reflux disease (GERD), dysfunctional disorders of the gallbladder (DpHD) and chronic cholecystocholangitis. The leading place among the etiological factors of the development of gastroduodenal pathology is currently occupied by helicobacter infection. However, in the domestic and foreign literature there is a relatively small number of publications devoted to the peculiarities of the clinic and the course of combined gastroduodenobiliary pathology in children with helicobacter infection.

The aim of the study- was to study the effect of helicobacter infection on the course of pathology of the upper gastrointestinal tract in children**.**

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Material and methods of research. The study group included 105 children (65 girls and 40 boys) with pathology of the gastroduodenal zone, which was mainly chronic combined with pathology of the biliary tract. The control group included 20 children who, according to clinical symptoms, had no lesions of the hepatobiliary system and gastroduodenal region, and according to the results of diagnostic methods (EGDS and ultrasound) they did not have any morphofunctional disorders of the organs of the upper digestive tract. When making the diagnosis, the classification of chronic gastroduodenitis was taken into account, developed on the basis of the classification proposed by A.V. Mazurin and co-authors, taking into account the endoscopic section of the "Sydney System" for the description of chronic gastritis, a new international morphological classification -the modified "Sydney System" [4]. When interpreting the diagnosis of lesions of the biliary system, the classification of diseases of the gallbladder and biliary tract in children was used, presented in the manual "Diseases of the digestive organs in children" edited by A.V. Mazurin [5], classification by the ultrasonographic method of O.P. Rotanov [6]. The diagnosis of the underlying disease and associated gallbladder dysfunction was verified on the basis of anamnesis, clinical observation, a set of laboratory tests characterizing the morphofunctional state of the stomach, biliary system. All examined sick children with various inflammatory diseases of the gastroduodenal zone at admission to the hospital had clinical manifestations characteristic of the period of exacerbation, and were usually discharged in the period of incomplete remission.

Research results. The examined patients were conditionally divided into the following groups: group 1 included 21 children diagnosed with isolated chronic gastroduodenitis, group 2 – 42 patients diagnosed with gastroduodenitis in combination with dysfunctional disorders of the gallbladder, group 3 – 42 patients suffering from gastroduodenitis in combination with chronic cholecystocholangitis. Insufficient knowledge of the clinic and diagnosis of combined gastroduodenobiliary pathology leads to incorrect diagnosis and late hospitalization of sick children, which undoubtedly affects the results of treatment and prevention of these diseases. Only 10 (10%) of the examined children were admitted to the hospital in the first year of the disease, 68 (65%) – in the second or third year, 26 children (25%) were admitted to the hospital 3 or more years after the onset of the disease. As can be seen from Table 2, the prevalence of sick girls in relation to boys was observed in all nosological units, this trend was especially pronounced in the case of HCG combined with cholecystocholangitis (23.2% – girls), gallbladder dysfunction (19.2%), chronic gastroduodenitis (9.6%). This, in general, coincides with the data on the greater susceptibility of girls to chronic pathology of the gastroduodenal zone [7-9]. Analysis of the results showed that the examined children showed signs of damage to the digestive tract even at preschool age. However, by the age of 15-17, the examined patients develop organic lesions of the hepatobiliary system in the form of cholecystocholangitis, whereas functional disorders occur at an earlier age. Taking into account the leading etiopathogenetic role of Helicobacter pylori in the development of chronic diseases of the stomach and duodenum, all children of the observed group were initially diagnosed according to the algorithm proposed by the Russian Group for the Study of Helicobacter pylori [10]. When analyzing the data obtained as a result of the verification of Helicobacter pylori infection using a respiratory helicobacter test, bacteriological and molecular genetic methods, it was revealed that this microorganism was detected in 47% of the examined

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patients (in 43 out of 92 patients). The clinical symptoms of patients with gastroduodenobiliary pathology in children, both infected with Helicobacter pylori and uninfected, differed in polymorphism. The leading sign in children infected with Helicobacter pylori was a combination of early and late pain and amounted to 80%, whereas in children without Helicobacter pylori infection, this type of pain was 2 times less common (in 38%). By the nature of pain, in children infected with Helicobacter pylori, blunt (85%) prevailed, much less often – cramping (8%), stabbing (5%), cutting (2%), which were localized mainly in the duodenogastric zone (96%). In 77% of children infected with Helicobacter pylori, cases of pain were paroxysmal. The intensity of the pain syndrome was assessed on a visually analog scale (VAS). In most cases (70%), children reported moderate pain and only 15% – severe. 40 (85%) of the examined children had dull pains. Pain in the duodenogastric zone was indicated by 96% of children and 2% in the right hypochondrium. The main factor aggravating abdominal pain in this group of children was increased physical activity, which accounted for 64% of the studied. Pain relief was noted with the use of medications in 30 patients. The irradiation of pain in the right hypochondrium in 45% was associated with a violation of the motor evacuation function of the biliary tract. Dyspeptic phenomena in the form of nausea occurred in 45% of children infected with Helicobacter pylori, and in 14% of children not infected with Helicobacter pylori. Vomiting and heartburn occurred, respectively, in 6% and 21% of children not infected with Helicobacter pylori. Dyspeptic syndrome was manifested by belching air in 38% and bitter 10% infected with Helicobacter pylori. A decrease in appetite was noted in 32% of children, and 28% of children indicated an increase in appetite. The language was overlaid in half of the children (59%) infected with Helicobacter pylori, which is 3.5 times more than in children not infected with Helicobacter pylori. Also, children with helicobacteriosis were 4 times more likely to complain of bad breath, compared with children not infected with Helicobacter pylori, which was 47% and 10%, respectively. Thus, the analysis of complaints revealed some differences in children infected and not infected with Helicobacter pylori. After analyzing these syndrome complexes, the following data were obtained in children uninfected with Helicobacter pylori. There was no pronounced significance of the combination of early and late abdominal pain. Patients complained of either early pain (31%) or late pain (31%). Most often, the pain symptom was of a permanent nature (72%) and was assessed by the surveyed children on a visual analog scale (VAS) as moderate in 31% of cases. Localization of pain was distributed evenly across all zones with no pronounced significance in one of them. The majority of children (60%) denied the irradiation of pain beyond the affected organ. The factor that increases abdominal pain in children uninfected with Helicobacter pylori was movement, increased physical activity, which accounted for 17% of the studied. Pain relief was noted in 55% of the surveyed children when taking warm milk, porridge. Dyspeptic syndrome was manifested by belching air in 74%, which is 2 times more patients infected with Helicobacter pylori, and belching bitter (in 31%), and nausea (in 14%). Heartburn was observed in 10% of children not infected with Helicobacter pylori. Asthenovegetative conditions, such as weakness and fatigue, dominated in 48%. The presence of pain during palpation in the epigastrium was noted in 47% of the total number of sick children with helicobacteriosis with various pathologies of the gastroduodenal zone. This symptom was most characteristic for children infected with Helicobacter pylori with HCG (88%), in whom it was persistently observed not only in the period of exacerbation, but also in the period of incomplete clinical remission. Whereas for children with HCG who were not infected with

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Helicobacter pylori, palpation soreness was more determined in the pyloroduodenal zone (91.6%). With BPH and cholecystocholangitis, soreness was determined equally often (46.6% and 36.8%) during palpation of the anterior abdominal wall in the epigastric zone, these figures to some extent correlate with the values of the frequency of occurrence of combined gastric pathology [11]. The presence of soreness with superficial and deep palpation at the point of the gallbladder was determined in 49% of the total number of sick children. Most often, this symptom was observed in patients with cholecystocholangitis and HCG (94.4%), especially during exacerbation. Approximately half (51.25%) of the examined children with various pathologies of the organs of the gastroduodenal zone had soreness with superficial or deep palpation in the pyloroduodenal zone. This symptom was most pronounced in palpatory examination of the anterior abdominal wall in children with HCG (91%), less often in children with BPH (41%) and cholecystocholangitis (10%).

Conclusions

1. It has been proven that in children with isolated forms of HCG and BPH, Helicobacter pylori is less common, compared with children who have organic lesions of the biliary system in the form of chronic cholecystocholangitis.

2. Patients infected with Helicobacter pylori have polymorphism of clinical symptoms. The high prevalence and severity of dyspeptic syndrome was revealed in children infected with Helicobacter pylori, compared with children without this infection.

3. A comparative analysis of palpatory examination of abdominal organs in patients with Helicobacter pylori invasion showed that there were no significant differences in percentage of palpation in patients not infected with H. pylori.

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