

CLINICAL AND ANAMNESTIC FEATURES OF THE COURSE OF EXTRAGASTRAL MANIFESTATIONS OF HELICOBACTER PYLORI INFECTION IN GASTRODUODENAL PATHOLOGY IN CHILDREN

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Annotation

The article presents the results of a survey of 105 children with pathology of the gastroduodenal zone, which was mainly combined with the pathology of the biliary tract. The characteristic features of the anamnesis of these patients are given, the analysis of the diagnostic significance of various symptoms revealed by palpation of the anterior abdominal wall is carried out. The issues of verification of *Helicobacter pylori* infection using the respiratory Helic test, bacteriological and molecular genetic methods for the analysis of 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 who have organic lesions of the biliary system in the form of chronic cholecystocholangitis, which requires verification of *Helicobacter pylori* in primary diagnosis -infection and subsequent etiotropic therapy.

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

In recent years, not only the growth of diseases of the digestive system has been observed, but also a change in their structure and pathomorphosis - the prevalence of the pathology of the upper gastrointestinal tract, the leveling of gender differences in the incidence of cholelithiasis, gastric ulcer and duodenal ulcer (DPC), combined damage to the hepatobiliary organs. and gastroduodenal regions [1]. In childhood, this group occupies the 2nd place among all pathologies for many years, and the exhausted morbidity, taking into account the results of medical examinations, is 3 times higher than in terms of appeals [2]. In preschool children 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 significance [3]. The largest part of the lesions of the digestive system occurs in chronic inflammatory diseases of the upper digestive tract: chronic gastritis and gastroduodenitis (CGD), gastroesophageal reflux disease (GERD), dysfunctional disorders of the gallbladder (DfZhD) and chronic cholecystocholangitis. The leading place among the

etiological factors in the development of gastroduodenal pathology is currently occupied by *Helicobacter pylori* infection. However, in domestic and foreign literature there is a relatively small number of publications on the features of the clinic and the course of combined gastroduodenobiliary pathology in children with *Helicobacter pylori* infection.

The purpose of the study was to study the effect of *Helicobacter pylori* infection on the course of the pathology of the upper gastrointestinal tract in children.

Material and Research Methods

The study group included 105 children (65 girls and 40 boys) with pathology of the gastroduodenal zone, which was mostly chronic combined with pathology of the biliary tract. The control group included 20 children who, according to clinical symptoms, did not have lesions of the hepatobiliary system and gastroduodenal region, and according to the results of diagnostic methods (FEGDS and ultrasound), they did not have any morphofunctional disorders of the organs of the upper digestive tract. When making a diagnosis, we took into account the classification of chronic gastroduodenitis, 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" of the description of chronic gastritis, a new international morphological classification-modified "Sydney system" [4]. When interpreting the diagnosis of damage to 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 system in children" edited by A.V. Mazurin [5], classification according to the ultrasonographic method of O.P. Rotanov [6]. The diagnosis of the underlying disease and associated dysfunction of the gallbladder was verified on the basis of anamnesis, clinical observation, a set of laboratory tests characterizing the morphofunctional state of the stomach and biliary system. All examined sick children with various inflammatory diseases of the gastroduodenal zone upon 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 after 3 or more years from the onset of the disease. As can be seen from Table 2, for all nosological units, there was a predominance of sick girls in relation to boys, this trend was especially pronounced in the case of CHD 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 in the examined children, signs of damage to the digestive tract appeared 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, while 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 in 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 verification of *Helicobacter pylori* infection using the respiratory Helic test, bacteriological and molecular genetic methods, it was revealed that this microorganism was detected in 47% of the examined patients (in 43 out of 92 patients). Clinical symptoms of patients with gastroduodenobiliary pathology in children, both infected with *Helicobacter pylori* and uninfected, differed in polymorphism. The leading symptom in children infected with *Helicobacter pylori* was a combination of early and late pain and amounted to 80%, while in children without *Helicobacter pylori* infection, this type of pain was 2 times less common (in 38%). According to 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*, pain was paroxysmal. The intensity of the pain syndrome was assessed using a visual analogue scale (VAS). In most cases (70%), children reported moderate pain, and only 15% had severe pain. In 40 (85%) of the examined children the pain was dull. Pain in the duodenogastric zone was indicated by 96% of children and 2% in the right hypochondrium. The main factor that increased abdominal pain in this group of children was increased physical activity, which accounted for 64% of the study. Relief of pain syndrome was noted with the use of medications in 30 patients. 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 with 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. Coating of the tongue was manifested 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 *Helicobacter pylori* were 4 times more likely to complain of bad breath compared to 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 not infected with *Helicobacter pylori*. There was no significant significance of the combination of early and late abdominal pain. Patients complained of either early pain (31%) or late pain (31%). Most often, the symptom of pain was permanent (72%) and was assessed by the children surveyed on the visual analogue scale (VAS) as moderate in 31% of cases. Pain localization was

distributed evenly across all zones without significant significance in one of them. The majority of children (60%) denied the irradiation of pain outside the affected organ. The factor that increases abdominal pain in children not infected with *Helicobacter pylori* was movement, increased physical activity, which accounted for 17% of the study. Relief of the pain syndrome was noted in 55% of the children surveyed when taking warm milk, porridge. Dyspeptic syndrome was manifested by belching with air in 74%, which is 2 times more patients infected with *Helicobacter pylori*, and bitter belching (in 31%), and nausea (in 14%). Heartburn was observed in 10% of children not infected with *Helicobacter pylori*. In 48%, asthenovegetative conditions dominated, such as weakness, fatigue. The presence of pain on palpation in the epigastrium was noted in 47% of the total number of sick children with helicobacteriosis, various pathologies of the gastroduodenal zone. This symptom was most characteristic for children infected with *Helicobacter pylori* with CHD (88%), in whom it was persistently observed not only during the period of exacerbation, but also during the period of incomplete clinical remission. Whereas for children with CHD, not infected with *Helicobacter pylori*, pain on palpation was more determined in the pyloroduodenal zone (91.6%). Pain on palpation of the anterior abdominal wall in the epigastric zone was equally common (46.6% and 36.8%) in DfZhP and cholecystocholangitis, these figures to some extent correlate with the incidence of gastric comorbidity [11]. The presence of pain during superficial and deep palpation at the point of the gallbladder was determined in 49% of the total number of sick children. Most often, this symptomatology was observed in patients with cholecystocholangitis and CHD (94.4%), especially during the period of exacerbation. Approximately half (51.25%) of the examined children with various pathologies of the gastroduodenal zone showed pain during superficial or deep palpation in the pyloroduodenal zone. The most pronounced symptom during palpation of the anterior abdominal wall was in children with CHD (91%), less often in children with DfZhP (41%) and cholecystocholangitis (10%).

Conclusions

1. It has been proven that *Helicobacter pylori* is less common in children with isolated forms of CHD and DfZhP compared to children who have organic lesions of the biliary system in the form of chronic cholecystocholangitis.
2. In patients infected with *Helicobacter pylori*, there is a polymorphism of clinical symptoms. A high prevalence and severity of dyspeptic syndrome in children infected with *Helicobacter pylori* was revealed in comparison with children without this infection.
3. Comparative analysis of palpation examination of the abdominal organs in patients with *Helicobacter pylori* invasion showed that there were no significant differences in percentages during palpation in patients not infected with *Helicobacter pylori*.

Literature

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