

## THE STATE OF THE DIGESTIVE ORGANS IN CHRONIC CHOLECYSTITIS IN CHILDREN

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**Abstract.** *Chronic cholecystitis in children under school age occurs with significant disorders in various organs of the gastrointestinal tract, liver, nervous, cardiovascular system.*

**Keywords:** *cholecystitis, inflammation of the biliary tract, associated organs.*

Chronic inflammatory diseases of the biliary tract are one of the most common pathologies of the digestive tract in children, and according to various authors, patients with chronic cholecystitis account for 17-20%.

Chronic inflammatory diseases of the gallbladder are combined with functional disorders and changes in the physicochemical properties of bile. The functional properties of bile are diverse: neutralization of hydrochloric acid, pepsin, activation of intestinal and pancreatic enzymes, emulsification of fats, reduction of the proliferation of putrefactive bacteria, stimulation of choleresis in the liver, excretion of medicinal, toxic substances, poisons and others.

Inflammatory processes and disturbances in the passage of bile can contribute to the development of functional and organic pathology of the liver, intestines, and disruption of microbiocenosis in the distal parts of the small intestine.

It is not always possible to establish the root cause of the disease of any of the gastrointestinal organs, since there are very complex functional relationships between them. However, along with the diagnosis of chronic cholecystitis, timely detection of associated functional and morphological disorders of adjacent organs (liver, intestines, etc.) can prevent the development of severe complications.

Chronic inflammatory diseases of the biliary system develop in children over several years, often occurring under the guise of dysfunctional disorders of the biliary tract and intestines. The anatomical and topographical relationships of the gallbladder of the liver, intestines, and their frequent combined involvement in the pathological process have reduced the diagnostic value of such clinical symptoms as pain and cystic symptoms, especially in young children. In this regard, early diagnosis of inflammatory diseases of the biliary system is the key to their successful treatment and reducing the development of associated damage to other organs and systems of the body.

However, it should be taken into account that in children, chronic cholecystitis in some cases occurs without pronounced manifestation of clinical symptoms, especially without an exacerbation or during the initial phase of the disease. But, nevertheless, even minor inflammation of the biliary tract leads to the development of pathology of related organs. (2.3)

In the presence of inflammatory diseases of the biliary system in children, timely detection at the functional level of disorders of related organs (liver, intestines, etc.) will facilitate the appointment of adequate corrective therapy and reduce the development of organic changes in these organs and systems.

The purpose of this study was to study the nature of chronic cholecystitis and its impact on the state of the intestinal biocenosis and the development of pathology of other organs in children 7-14 years old and to develop methodological approaches to their early diagnosis.

**Material and methods.** To achieve this goal, we examined 72 patients diagnosed with chronic cholecystitis in the acute stage of the disease at the age of 7-14 years. Among the patients with cholecystitis, there were 32 (44.4%) boys and 40 (55.6%) girls. On average, the age of the patients was  $11.9 \pm 1.9$  years (Table No. 1). The collection of material for research and examination of patients was carried out on the basis of 4-GKDB for the period from 2020-2022. Groups of patients were selected by random sampling as they applied to this institution for examination. For each patient, a medical history was created with a registration number for registration and medical examination of patients.

The diagnosis was verified on the basis of anamnestic and clinical data, laboratory parameters and instrumental studies, bile analysis during duodenal intubation.

**Results and discussion.** All studies were carried out by informing the parents of the children examined.

**Table №1.**

***Distribution of patients by gender and age (n=72)***

Age of patients	Boys abs.%	Girls abs.%	P	Total abs.%
7	1(3,1±2,7)	2(5,0±3,3)	P>0,05	3(4,1±2,3)
9	2(6,25±3,1)	2(5,0±3,3)	P>0,05	4(5,5±2,6)
10	3(9,4±3,6)	3(7,5±3,7)	P>0,05	6(8,3±3,2)
11	3(9,4±3,6)	5(12,5±4,0)	P>0,05	8(11,1±3,7)
12	6(18,75±4,2)	10(25,0±3,9)	P>0,05	16(22,2±4,8)
13	10(31,25±3,8)	9(22,5±4,4)	P>0,05	19(26,3±5,1)
14	7(21,9±4,8)	9(22,5±4,4)	P>0,05	16(22,2±4,8)
Totally	32(44,4±7,6)	40(55,6±7,6)	P>0,05	72 (100,0)

Based on the presented data, it can be seen that the largest number of patients were aged 12-14 years. Younger patients were less likely to develop chronic cholecystitis, as evidenced by the data in the table.

The next step was to analyze a number of anamnestic data and complaints from patients. Thus, the common diseases that children suffered were: viral hepatitis A - in 19 (26%), viral hepatitis B - in 2 (2.7%), helminthic infestation in 7 (9.7%), giardiasis - in 9 (12.5%), other types of infection - in 21 (29.1%) and frequent respiratory diseases in 24 (33.3%) children.

When analyzing a number of anamnestic indicators and complaints from patients, we found that in the vast majority of cases, patients associated the onset of the disease with a violation of the diet, consumption of fatty foods, fast food and carbonated drinks. The disease in all cases was recurrent in nature and relapses in 97.7% of cases were caused by gross violations of nutrition and diet, and in 18.0% they were seasonal (spring-autumn) in nature. It should be noted that a family predisposition to the development of chronic cholecystitis in patients was not identified. Thus, chronic pathology of the gastrointestinal tract in the parents of the examined children was noted only in 11.1% of cases. At the same time, almost all patients had a high incidence of various concomitant (100%) and previously suffered (88.9%) diseases, including those from the

gastrointestinal tract. Indicators such as an allergic history in parents (21.8%) could possibly influence the nature and development of chronic cholecystitis in patients. (1,4,5)

Almost all children had numerous complaints from the gastrointestinal tract (abdominal pain of various localization, nature and severity, signs of dyspepsia, phenomena characteristic of intestinal dysbiosis, phenomena of malabsorption and maldigestion, etc.), nervous system, etc.), skin integument (hypo- and hyperpigmentation of the skin, allergies and other rashes) and well-being, moreover, their nature and severity were different and did not depend on the gender of the patients. Parents of sick children paid special attention to their irritability, nervous system lability, and decreased performance at school.

**Conclusion.** Thus, based on the presented data, it is clear that in school-age children, chronic cholecystitis occurs with significant disturbances in various organs and systems of the body, including pathologies of other organs of the gastrointestinal tract, liver, nervous, and cardiovascular systems.

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