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The quality of life of premature infants, estimated by parents and pediatricians

	B and C		PD and PH		ABA		FE		Оценка КЖ с 1-10 баллов	
	Par	Ped	Par	Ped	Par	Ped	Par	Ped	Par	Ped
ELBW	3,5	4,4	2,8	2,6	3,4	3,2	4,8	4,7	6,7	5,3
VLBW	4,4	4,6	4,0	4,0	3,9	3,7	4,8	4,7	8,8	7,5
LBW	4,4	4,6	4,2	3,6	3,4	3,6	4,7	4,8	8,8	7,9

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LATENT HBV-INFECTION IN CHILDREN AND ADOLESCENTS IN YAKUTIA

ABSTRACT

The article is devoted to an actual problem of infectology and pediatrics. The introduction into laboratory practice of molecular biology techniques for detecting infectious agents significantly increased the understanding of the characteristics of chronic hepatitis B course (CHB). It was shown that DNA virus with a low copy number continues to be determined in serum and liver tissue in patients with some level of HBsAg nedektiruemym both acute and chronic infection, or even after antiviral therapy. In recent years, it has been convincingly proved the existence of HBsAg-negative forms of chronic hepatitis B, which has led to the emergence of the concept of latent HBV infection, which is characterized by the presence of the virus in the body at undetectable levels of HBsAg. This reduction in the formation of HBsAg to undetectable levels during the development of chronic infection is a very common and well-described phenomenon. This is a special group of patients, who often escape the attention of doctors, since screening is carried out only by HbsAg. With such an important development of CHB, and often the only serological marker of infection the patient is the presence of anti-HVcor IgG.

In the present study we compared the clinical and laboratory data of children and adolescents with HBsAg-negative and HBsAg-positive chronic viral hepatitis (CVH). The study did not reveal fundamental differences in epidemiological, clinical laboratory data in patients with latent chronic hepatitis B, in comparison with the manifest forms of the disease. It is found that these patients suffer from chronic liver disease not less than HbsAg (+) patients. Introduction of a-HBcor to the screening will allow actively identify these patients and to carry out a full range of medical and dispensary activities.

Keywords: children, adolescents, HBV-infection, latent form.

INTRODUCTION

Among the regions of the Russian Federation of the Republic of Sakha (Yakutia) refers to areas with a high incidence of viral hepatitis [2, 6]. The main markers of infection in determining the population is HBsAg. In recent years, it has been convincingly proved the existence of HBsAg-negative forms of chronic hepatitis B, which has led to the emergence of the concept of latent HBV infection, which is characterized by the presence of the virus in the body at undetectable levels of HBsAg [2.5]. The hepatitis B virus can be a long latency ("latent") state in the liver, and in some cases, and HBsAg-negative patients in the blood [1,2,3,4,6,7]. The children, especially the first years of life, due to the lack of immunological infectious process proceeds in the form of deleted, anicteric, subclinical [1,4]. Studies dealing with the problem of latent hepatitis C, particularly in children, there are currently little, making the actual operation. The aim of this study was to investigate the clinical and laboratory picture of the flow of latent in-

fection of HBV-children and adolescents in Yakutia.

MATERIALS AND METHODS

We analyzed 153 outpatients sick children diagnosed with CHB. The criteria for selection of patients in the study group were: diagnosis by ELISA and PCR, observation is not less than one year, the study of basic laboratory and instrumental methods of diagnosis. Of 153 patients, 122 (79.6%) patients allocated HBsAg, 31 (20.3%) in the presence of a-NVsor and DNA HBV, and not determined as HBsAg-HBsAg. Physical development in patients with chronic hepatitis B was assessed by centile tables designed for the RS (Y), and taking into account ethnic differences. The patients, in addition to clinical examination, including assessment of the hemogram, the results determine the activity alaninaminotransfera-PS (ALT), aspartate aminotransferase (AST), alkaline phosphatase (ALP), gamma-glutamyl (GGT), evaluation of protein-synthetic function of the liver, the determination of the total levels and conjugated (direct) bilirubin, glucose, cholesterol, triglycerides, β-lipoproteins, prothrombin index (PTI); Standard methods of instrumental studies (US).

RESULTS AND DISCUSSION

In the analysis of sex and age composition of statistically significant differences were found. Among patients in both groups was dominated by teenagers.

In both, the largest number of groups of patients of yakut nationality. Among the patients of chronic hepatitis B (HbsAg +) were 86 children Yakuts (70.4%) among patients of chronic hepatitis B (HbsAg-) - 22 children (70.9%). In 24 Russian patients (19.6%) diagnosed HbsAg, HBV (HBsAg-) was diagnosed in 8 patients (25.8%). All 7 patients at MKNS (Evens, Evenki, Yukagirs, Chukchi), there was a chronic hepatitis B (HbsAg +). Among patients of other nationalities HBV (HbsAg +) was detected in 5 children (4%), HBV (HbsAg-) - in 1 child (3.2%).

Thus indigenous nationalities (Yakuts and MKNS) accounted for the vast majority of both groups

Due to the fact that the clinic CVH scarce, most patients complaints actively usually did not show, but after a detailed survey in 35.2% of patients (43 children) with chronic hepatitis B (HBsAg +) and in 25.8% of cases (8 children) in patients with chronic hepatitis B (HBsAg-) following complaints have been identified. Most frequent complaints related to impaired liver function. Thus, the most frequent complaints related to impaired liver function. Violation of detoxification function was shown to reduce the health and headaches, synthetic - in the nosebleeds. Pain and dyspeptic syndrome seems to be associated with chronic diseases of the gastrointestinal tract. Patients with chronic hepatitis B disease syndrome occurred in 82.1% of cases, and biliary tract pathology in 30.3% of cases. No statistically significant differences between patients with chronic hepatitis B (HBsAg +) and CHB (HBsAg-) the frequency and nature of complaints is not revealed.

Patients with chronic hepatitis B in most cases marked disharmonious development deficit of body weight. Low levels of body weight of more than half of children diagnosed with CHB indicate if they have a chronic intoxication. And pathologically short stature met 2.2 times less than the abnormally low body weight (Table. 1).

No statistically significant differences between patients with chronic hepatitis B (HBsAg +) and HBV (HBsAg-) in the distribution of centile channels were found ($p > 0.05$) for body weight and growth.

Some patients have been identified "extrahepatic signs", which include palmar erythema, telangiectasia and expansion of venous pattern on the skin of the chest and abdomen. These signs are rare. In 1.7% of patients with chronic hepatitis B (HBsAg +) and 2.3% of patients with chronic hepatitis B (HBsAg-). An objective examination of patients with chronic hepatitis B an increase in the liver - in 31 children (20.3%) often occurs. Splenomegaly is much rarer - in 3.9% of cases (6 children). The ultrasound of patients with chronic hepatitis B are slightly different depending on the presence of HbsAg. Hepatomegaly occurs in patients with chronic hepatitis B (HBsAg +) in 27% of cases (33 children), and for HBV (HBsAg-) only in 12.9% of cases (4 children). However, hepatosplenomegaly in both groups occurred equally often: when HBV (HBsAg +) - 6,6% (8 children) with chronic hepatitis B (HBsAg-) - 6,5% (2 children). Despite the fact that hepatomegaly met more than a third of patients, the liver parenchyma change observed not at all. The inhomogeneous structure with HBV (HBsAg +) occurred in 9% of cases (11 children), with HBV (HBsAg-) - 6.1% (5 children). Increased hepatic ehoplotnosti occurred in 11.5% of patients (14 children) and 6.5% (2 children) (Tab. 2).

Thus, statistically significant differences ($p < 0.05$) were observed only in the frequency of hepatomegaly.

Intensity of cytolytic syndrome was assessed by levels of ALT and AST in the serum of the patient. Patients with chronic hepatitis B cytolytic syndrome occurs almost one-third. Jaundice is not a common sign of chronic hepatitis in children. According to laboratory data increase in total bilirubin observed in 18.3% of cases (28 patients). Violation of protein-synthetic liver function expressed in lowering albumin levels in the blood serum of the patient noted in 22.9% of cases. However, reduced albumin levels was moderate, did not exceed 16.3% and averaged 7.6% (Table. 3).

Statistically significant differences between the two groups of patients identified were not ($p > 0.05$).

In the hemogram of patients with CHB were detected most frequently were change in hemoglobin levels. Reduced hemoglobin observed in 43.8% of patients (53 patients) in patients with chronic hepatitis B (HBsAg +) and 40% (14 patients) - HBV (HBsAg -). Reducing the number of leukocytes in 4.1% (5 patients) in patients with HBV (HBsAg +) and 3.2% of cases (1 patient) - HBV (HBsAg-). Reducing the number of platelets in patients with chronic hepatitis B were observed in 3.9% of cases (6 children) are - 3.3% (3 patients) in patients with chronic hepatitis B (HBsAg +) and 3.2% of cases (patients 1) - CHB (HBsAg-) (tab. 4).

CONCLUSION

For chronic hepatitis B it is characteristic for oligosymptomatic. For a long time, patients do not experience any health problems and only having read through

Table 1

Table 1. Body weight and height of patients with chronic hepatitis B

Centille	CHB (n=153)							
	HbsAg + (n=122)				HbsAg - (n=31)			
	Body Weight		Height		Body Weight		Height	
	n	%	n	%	n	%	n	%
until 3	6	4,9	3	2,5	1	3,2	0	0
3-10	21	17,2	4	3,3	6	19,4	1	3,2
10-25	35	28,7	20	16,4	9	29	5	16,1
25-75	49	40,2	64	52,5	14	45,2	18	58,1
75-90	5	4,1	16	13,1	1	3,2	6	19,4
90-97	3	6,9	14	11,5	0	0	1	3,2
more 97	3	2,5	1	0,8	0	0	0	0

the years show signs of liver disease. This feature CHB clinics, as well as the fact that children and adolescents may not have much time disease, explains the scant clinical data that have been identified in this study. In most cases, the patients and their parents were unaware of the presence of chronic liver disease, and the disease was discovered by accident.

The study did not reveal fundamental differences in epidemiological, clinical and data in patients with latent chronic hepatitis B, in comparison with the manifest forms of the disease. Children and adolescents with chronic hepatitis B HbsAg (-) is a special group of patients, who often escape the attention of doctors, since screening is carried out only by HbsAg. Introducing a screening-NVsor allowed us to identify this group of patients, and our research shows that these patients suffer from chronic liver disease no less than HbsAg (+) patients.

Table 2

Ultrasonic estimation results at patients with CHB

Indicator	CHB (n=153)			
	HbsAg + (n=122)		HbsAg - (n=31)	
	n	%	n	%
Hepatomegaly	33	27	4	12,9
Hepatosplenomegaly	8	6,6	2	6,5
Heterogeneous parenchyma structure	11	9	5	16,1
Increasing density	14	11,5	2	6,5
Seal wall of the gallbladder	10	8,2	4	12,9
Increased vascular pattern	15	12,3	2	6,5

Table 3

Biochemical analysis of blood of patients with CHB

Indicator	CHB (n=153)				p
	HbsAg + (n=122)		HbsAg - (n=31)		
	n	%	n	%	
ALT 1,5 N	5	4,1	2	6,5	>0,05
ALT more than 2N	0	0	0	0	
AST 1,5 N	37	30,3	8	25,8	>0,05
AST more than 2N	0	0	0	0	
Hyperbilirubinemia	22	18,2	6	20,0	>0,05
GGT greater than N	1	0,8	0	0	
Alkaline phosphatase greater than N	0	0	1	3,2	>0,05
Total protein is less than N	24	19,7	6	19,4	>0,05
Albumin is less than N	29	23,8	6	19,4	>0,05
Cholesterol is larger than N	16	13,2	2	6,7	>0,05
β-lipoprotein	2	1,6	3	1	>0,05
Triglycerides	1	0,8	0	0	

Table 4

Data from clinical blood studies of patients with chronic hepatitis B

Indicator	CHB (n=153)				p
	HbsAg + (n=122)		HbsAg - (n=31)		
	n	%	n	%	
Red blood cells are less than N	45	37,2	12	40	>0,05
Hemoglobin less than N	53	43,8	14	46,7	>0,05
White blood cells are less than N	5	4,1	1	3,2	>0,05
Platelets less than N	4	3,3	1	3,2	>0,05

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