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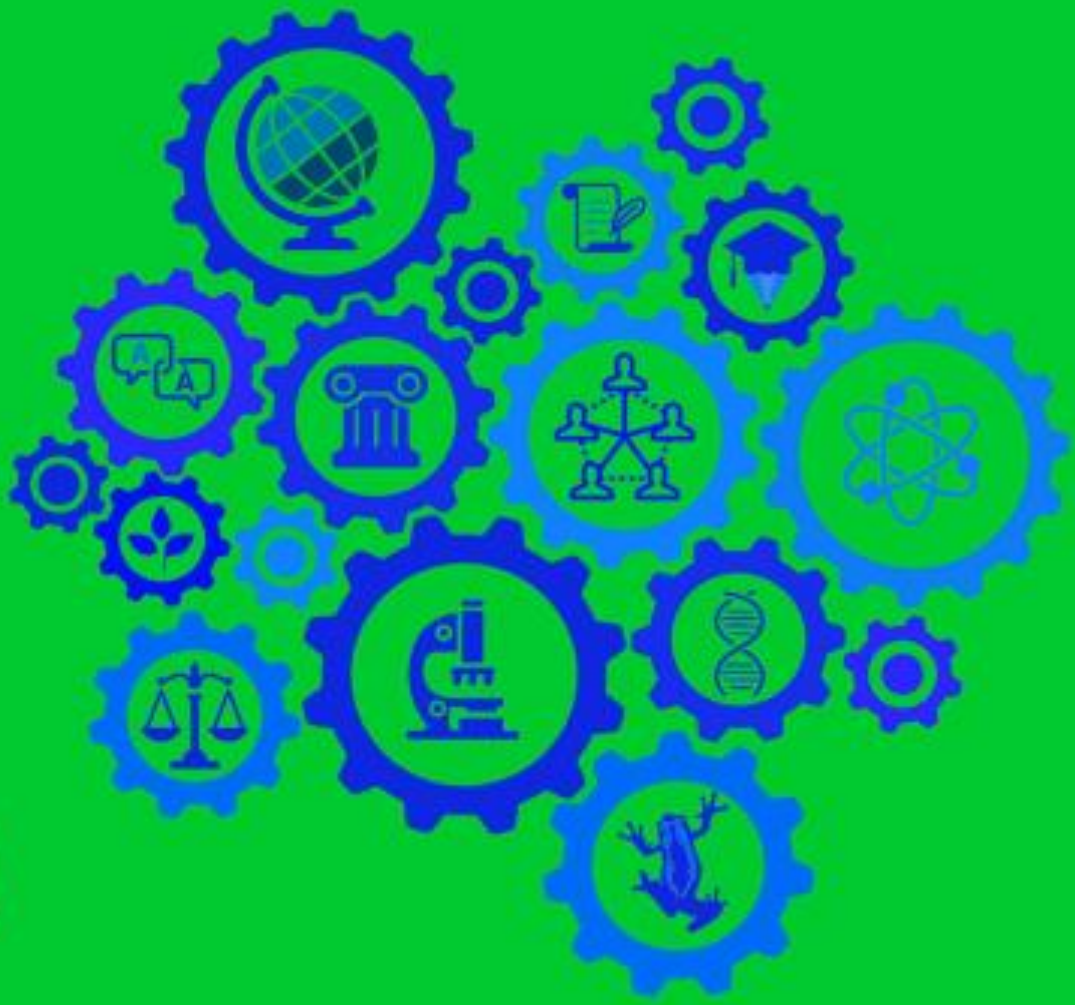

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MICROSCOPIC COMPOSITION OF BILE IN CHILDREN WITH CONVALESCENTS OF VIRAL HEPATITIS "C"

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Keywords: viral hepatitis, bile, cholesterol crystals, microliths, microscopic composition of bile

Relevance: Currently, there is an increase in the prevalence of liver diseases worldwide. In the Republic of Uzbekistan, the incidence of viral hepatitis tends to decrease dynamically. In 2010, compared with 1990, the incidence of viral hepatitis decreased 8.2 times and amounted to 107.7 versus 882.0 per 100 thousand population. In 2010, compared with 2009, the incidence of viral hepatitis decreased by 18.6% [1].

Modern methods of diagnosis and treatment of patients with viral hepatitis are being introduced into practice. However, despite this, measures to combat viral hepatitis need further improvement, especially in terms of early detection of patients, laboratory differential diagnosis, treatment of patients with acute forms of hepatitis, also with residual manifestations [2]. Often, dysfunctions of the biliary tract occur in children with multiple foci of secondary infections, also after viral hepatitis [3, 5].

Considering the above, differentiated therapy of biliary dysfunctions is of great difficulty. It is known that the conditions for the normal functioning of liver cells, and thus the entire hepatobiliary system, are the absolute integrity of the membranes and the physiological structure of the cell organelles. Stabilization of cell membranes provides physiological secretion of bile, and restoration of intercellular connections - normalization of its outflow [4].

Objective: To study changes in the microscopic composition of bile in convalescent children of viral hepatitis C (cHCV) and optimize therapeutic treatment

Materials and methods of research

The clinical part of the study was conducted in the children's infectious diseases department of the 3rd TMA clinic, the "City Consultative and Diagnostic Hepatological" center on the basis of the 1st CIH, the hepatological department on the basis of the Virology Research Institute and the children's hepatitis department of the EMIZ Research Institute. The study included 32 children of rVGC with pathology of the biliary tract.

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As a comparison group, the indicators of 20 children of cHCV without LVP pathology were taken; 10 practically healthy children took similar indicators as a control group.

The pathology of HDL was confirmed by the results of general clinical studies, biochemical blood tests, instrumental methods (ultrasound of the abdominal cavity, duodenal probing), microscopic examination of the composition of bile, statistical.

In children of convalescents of viral hepatitis with the pathology of HDL was more common at the age of 7-14 years (65.6%), and in children of cHCV girls prevailed (59.4%).

Depending on the treatment, patients with LVP pathology were divided into 3 groups: group 1 consisted of 10 cHCV patients who received only dietary nutrition (diet No. 5 according to Pevsner); group 2 10 cHCV patients who received physiotherapy treatment (electrophoresis with magnesia sulfate solution) against the background of diet therapy; group 3 12 cHCV patients who received combination therapy (physiotherapy treatment and Phosphogliv drug). Phosphogliv was prescribed according to the following scheme: for 10 days – intravenously, then orally from the following calculation: children under 3 years - ½ capsule 3 times a day, from 3 to 7 years - 1 capsule 3 times a day, older than 7 years - 2 capsules 2-3 times a day. The duration of the course of treatment with the capsule form was on average 14 days.

Results of the study and discussion: The results of the study of the microscopic composition of bile before treatment are shown in Table 1.

Table 1

Microscopic picture of all portions of bile in children of convalescents of viral hepatitis with a violation of the biliary system before treatment

Composition		cHCV (n=32)		Norm
		абс	%	
Portion A	Slime	2	6,3	abs
	Cylindrical epithelium	32	100	single
	Leukocytoids in p/zr. 10	32	100	single
	Leukocytoids in p/zr. 10	-	-	abs
	Cholesterol Crystals	11	34,4	abs
	Ca Bilirubinate	7	21,8	abs
	Microliths	12	37,5	abs
P o	Slime	-	-	abs

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	Cylindrical epithelium	32	100	single
	Leukocytoids in p/zr. 10	32	100	single
	Leukocytoids in p/zr. 10		-	abs
	Cholesterol Crystals	17	53,1	abs
	Ca Bilirubinate	17	53,1	abs
	Microliths	18	56,3	abs
Portion C	Slime	-	-	abs
	Cylindrical epithelium	32	100	single
	Leukocytoids in p/zr. 10	32	100	single
	Leukocytoids in p/zr. 10	-	-	abs
	Cholesterol Crystals	22	68,7	abs
	Ca Bilirubinate	14	43,7	abs
	Microliths	14	43,7	abs

As can be seen from Table 1, in children with cHCV, mucus was detected only in portions of bile (6.3%). In 100% of children with cHCV, the epithelium is cylindrical and leukocytoids up to 10 pp. were determined in all portions of bile. In In children of rVGC, cholesterol crystals are detected in all portions of bile (24.9%, 33.2%, 36%, respectively). This indicator proves that children with cHCV have more cholelithiasis. In children with cHCV, microliths are detected in more than 21.8-68.7% of cases in all portions of bile (microliths are not normally detected), which indicates the lithogenic properties of bile in children with parenteral hepatitis. On the contrary, in children with cHAV, microliths were detected less in all portions of bile (A - 5.6%, B - 5.9% and C - 2.7%).

In this regard, based on the data obtained, we applied various therapy regimens in children with impaired microscopic parameters of HCV survivors. The results of the studies are shown in Tables 2 and 3.

We evaluated the effectiveness of dietary therapy in children with HCV. Our studies have shown that in children who had HCV, diet therapy did not lead to normalization of microscopic parameters. This may be explained by deeper and grosser pathomorphological and pathophysiological disorders caused by the HS virus. Therefore, in children with rVH, it is necessary to supplement diet therapy with other medicinal and non-medicinal interventions.

The next stage of the study was to study the effect of dietary therapy in combination with physiotherapy interventions.

The effectiveness of such a combination turned out to be somewhat higher. In group 2 of cHCV, the cylindrical epithelium and leukocytoids (in n/a. little to 10) significantly decreased in all portions of bile compared with the results before treatment and group 1. In 20% of children, cholesterol crystals in the composition

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of "C" portions of bile significantly decreased compared to the results before treatment.

The best results were obtained by us in the 3rd group.

In 75-83.4% of children with cHCV, the cylindrical epithelium and leukocytoids (in n/a. little to 10) were normalized in all portions of bile. In 8.3% of children, calcium bilirubinate and cholesterol crystals were detected in the "B" and "C" portions of bile. These indicators significantly decreased compared to the results before treatment, groups 1 and 2.

Microliths (microscopic stones) usually consist of lime, mucus and a small amount of cholesterol. Microliths are normally more often found in portions "B" and "C" in mucus flakes. "Sand" or the accumulation of all sedimentary elements of bile in the form of microscopic grains also indicates the presence of cholelithiasis.

Thus, the results of the above studies show that children with cHCV have more cholelithiasis than children with others hepatitis.

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Table 2 - microscopic picture of bile in cHCV

Тип	**Pr. healthy (n=10)**		**Group before treatment (n=60)**		**1 group (n=20)**		2 group (n=10)		P 1	**3 group (n=12)**		P2	P3
	абс	%	абс	%	абс	%	абс	%		абс	%		
Portion A													
mucus	-	-	7	21,8±7,2	2	20±12,6	2	20±12,6		-	-		
The epithelium is cylindrical	1	10±9,4	32	100	10	100	9	90±9,4**	<0,05	2	16,6±10,7**	<0,001	<0,001
Leukocytoids in p/zr. 10	1	10±9,4	32	100	10	100	9	90±9,4**	<0,05	2	16,6±10,7**	<0,001	<0,001
Leukocytoids in p/zr. 10	-	-	-	-	-	-	-	-		-	-		
Cholesterol Crystals	-	-	11	34,4±8,3	3	30±14,4	2	20±12,6		-	-		
Ca Bilirubinate	-	-	7	21,8±7,2	2	20±12,6	2	20±12,6		-	-		
Microliths	-	-	13	40,6±8,6	4	40±15,4	3	30±14,4		-	-		
Portion B													
mucus	-	-	10	31,2±8,1	3	30±14,4	2	20±12,6		-	-		
The epithelium is cylindrical	1	10±9,4	32	100	32	100	8	80±12,6**	<0,05	3	25±12,5	<0,001	<0,001
Leukocytoids in p/zr. 10	1	10±9,4	32	100	32	100	8	80±12,6**	<0,05	2	16,6±10,7	<0,001	<0,001
Leukocytoids in p/zr. 10	-	-	-	-	-	-	-	-		-	-		
Cholesterol Crystals	-	-	17	53,1±5,6	5	50±15,8	4	40±15,4		-	-		
Ca Bilirubinate	-	-	17	53,1±5,6	5	50±15,8	5	50±15,8		1	8,3±7,9	<0,003	<0,003
Microliths	-	-	18	56,3±8,7	5	50±15,8	4	40±15,4		-	-		
Portion C													
mucus	-	-	7	21,8±7,2	2	20±12,6	2	20±12,6		-	-		
The epithelium is cylindrical	1	10±9,4	32	100	32	100	8	80±12,6**	<0,05	2	16,6±10,7	<0,001	<0,001
Leukocytoids in p/zr. 10	1	10±9,4	32	100	32	100	9	90±9,4**	<0,05	2	16,6±10,7	<0,001	<0,001
Leukocytoids in p/zr. 10	-	-	-	-	-	-	-	-		-	-		
Cholesterol Crystals	-	-	22	68,7±8,1	7	70±14,4	5	50±15,8**		1	8,3±7,9	<0,003	<0,003
Ca Bilirubinate	-	-	14	43,7±8,7	4	40±15,4	4	40±15,4		-	-		
Microliths	-	-	14	43,7±8,7	4	40±15,4	4	40±15,4		-	-		

Note:*- reliability of differences compared to healthy children; **- reliability of differences compared to the group of children before treatment; P1 - reliability of differences between groups 1 and 2; P2 - reliability of differences between groups 1 and 3; P3 - reliability of differences between groups 2 and 3

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Conclusions:

1. Children who have undergone HCV have multidirectional changes in microscopic parameters, due to various pathomorphological and pathophysiological changes initiated by various hepatitis viruses;
2. In children of rVGC, cholesterol crystals are detected in all portions of bile. This indicator proves that children with rVGC have more cholelithiasis.
3. The combination of non-drug (physiotherapy) and drug (Phosphogliv) interventions contributes to the almost complete normalization of microscopic parameters in all children who have undergone CAA, as well as in most children with rVGC. This allows us to recommend this set of interventions as the optimal approach in the rehabilitation of children who have suffered viral hepatitis.

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