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Cholecystitis and Cholangitis at Children

ABSTRACT

The purpose of this article was to study the features of course, prevalence, and the cholecystitis formation causes in children of Sakha (Yakutia). The following clinical features of cholangitis and cholecystitis in children: pain in the right hypochondrium, nausea, vomiting, fevers up to 37, 5 degrees C were revealed. Positive symptoms by Ortner, Musset, Murphy and Kera were found in the all examined children. On ultrasound thickening of the walls of the gall bladder, enlargement of the gallbladder, which is an indirect evidence of the inflammatory process, were revealed.

Keywords: dysfunctional disorders, biliary system, gall bladder, biliary path, diseases, pathology.

INTRODUCTION

Cholangitis, cholecystitis, non-specific inflammatory lesion of the bile ducts and gall bladder acute or chronic. Inflammation of the gallbladder, or cholecystitis in children more likely to have bacterial origin, it is sometimes secondary to biliary dyskinesia, the presence of gallstones, when parasitic infestations.

The nature of the pathological process of acute cholecystitis is divided into catarrhal, phlegmonous and gangrenous. These form part of the patients can be considered as the stage of the disease. The leading role in the development of acute cholecystitis infection belongs. The most common pathogen is *Escherichia coli*; less likely to cause disease staphylococci, streptococci and enterococci. Cholecystitis occurs when autolytic lesions of the mucous membrane of the gall bladder as a result of the cast in the cavity of the pancreatic juice. Inflammation is possible with helminthic infestation (ascariasis). It must be remembered that the infected bile does not cause inflammation of the gallbladder without predisposing factors - stagnation and damage to the walls of the body. Stagnation contribute to organic changes in ways bile outflow (compression or bend the neck of the gallbladder and ducts, obstruction of the duct by a stone, mucus, or worms), and dyskinesia of the gallbladder and biliary tract under the influence of the nutritional (rhythm, quantity, quality of food, overeating, eating fatty foods). The role of emotional stress, stress, physical inactivity, metabolic disorders, leading to changes in the chemical composition of bile. Inflammation of the gall bladder reflex may occur when the disease of the other organs of the gastrointestinal tract as a result of viscerovisceral interactions. Damage to the wall of the gallbladder is possible with the irritation of his mucous membranes by bile with modified physico-chemical properties (lithogenic bile), trauma calculi, worms, pancreatic enzymes flows into the common bile duct (spasm of the sphincter of Oddi).

Aim: to examine the course, prevalence and causes of formation of cholecystitis in children of Sakha(Yakutia)

MATERIALS AND METHODS

We conducted a survey and analysis of patient charts 51 children living in encampments (Zhigansky, Olenek, Abyysk, allaikhovskiy) of the Republic of Sakha (Yakutia) on the basis of the consultative polyclinic of the pediatric center of national center of medicine. All patients were examined by a pediatrician and specialists: gastroenterologist, cardiologist, endocrinologist, otolaryngologist, surgeon, orthopedist, allergist-immunologist. All

patients underwent General clinical research (General analysis of blood and urine, biochemical blood tests (liver function tests, rheumatology test, etc.), functional methods, in the presence of pathology. All children performed an abdominal ultrasound and liver, ultrasonography of the biliary tract, CT.

The obtained radiographs and tomograms well-visualized structure of the biliary tract, which can detect the cause of the obstruction.

Statistical calculations made on the basis of applied programs "SAS" and "SPSS" In the analysis of contingency tables (estimates of the correlation of the characteristic and evaluation of significance of differences between groups) used the criterion of χ^2 (Pearson and likelihood ratio and Fisher's exact test. Comparison of mean values was performed univariate analysis of variance using T-student criterion for assessing the equality of mean F-Fisher test to assess equality of variance. The relationship between parameters was assessed using coefficients of the linear and rank correlation. To assess the relative risk of each of the indicators of risk factors and their distant shades, as well as to select the most meaningful combinations of risk factors used logistic regression (univariate analysis for each of the characteristics separately and multiple step-by-step method for the totality of symptom).

RESULTS AND DISCUSSION

In 15 (29%) children with chronic cholangitis discovered Giardia, 10 (19%) -ascariasis, 30 (59%) children on the ultrasound detected bend the neck of the gallbladder, in 20 (39%) children the day before was psycho-emotional stress and overload.

Only in 5 children discovered cholecystitis, 2 children cholecystitis was calculous. The clinical course of cholangitis detected with the following features: pain in the right hypochondrium in 51 (100%) of the surveyed children, nausea was observed in 40 (78%) children, vomiting in 30 (59 %) of children 51 children was an increase in temperature to 37.5 degrees. Positive symptoms Ortner, Musset, Murphy and Kera found in all examined children. Symptom of hepatomegaly was detected in 40 (59%) children. Intoxication syndrome (weakness, loss of appetite) were observed in 51 children.

Symptom of jaundice was observed in 36 patients. Thus, Charcot's triad (pain in the right hypochondrium, jaundice and fever) were observed in 36 (60%) patients. 5 patients detected concomitant chronic hepatitis. On ultrasound in all the examined children revealed thickening of the walls of the gallbladder, more than 3 mm, and 50% of patients noted an increase in the gallbladder, which is an indirect evidence of the inflammatory process.

Laboratory studies revealed a different spectrum and intensity changes of liver function and other laboratory tests. In General, the analysis of blood revealed a moderate acceleration of erythrocyte sedimentation rate in 40 (78%) patients, lymphocytosis in 48 (80%) children. In biochemical studies revealed increased ALT activity and/or ACT in 50 children, dysproteinemia due to hypoalbuminemia and increased levels of gamma globulins in 40 children, moderate - total bilirubin due to the associated and to a lesser extent - free fraction, the activity of alkaline phosphatase was observed in 23 children. Serology confirmed the presence of hepatitis in 5 patients.

Immunological studies reveal decrease in the number of T-lymphocytes in 50 (95%) children, T-suppressors in 46 (76%), increasing T-helper cells in 38 (72%), increasing concentrations of immunoglobulins G and M in 51 children.

Thus, thickening of the gallbladder wall on ultrasound is a non-specific symptom, it is possible to establish the diagnosis of cholecystitis only one with this symptom, the Clinician may not, it needs to take into account the clinical picture of the disease and laboratory analysis data.



CONCLUSIONS

1. In biochemical studies of blood in children of patients with cholecystitis and cholangitis noted: hyperbilirubinemia at the expense of both factions, signs of inflammation - increased sialic acid seromucoid. Immunological studies reveal a decrease in the number of T-lymphocytes, T-suppressors, elevated levels of T-helper cells, increased concentrations of immunoglobulins G and M in 51 children in the concentration of immunoglobulins G and M in 51 children.
2. Thickening of gallbladder wall on ultrasound is a non-specific symptom, it is possible to establish the diagnosis of cholecystitis only one with this symptom, the Clinician may not, it needs to take into account the clinical picture of the disease and laboratory analysis data.

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