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Abstract:

Inflammatory diseases of the outer and middle ear, developing against the background of HBV, are characterized by the duration of the process and low effectiveness of conservative therapy. With the development of inflammatory processes of the disease, great importance should be attached to nonspecific resistance and immunological processes

Keywords: chronic viral hepatitis B, acute otitis media, treatment, immuno-correlation therapy.

Introduction

Relevance. Viral hepatitis is a widespread infectious disease and is one of the urgent problems of medicine. In children under 15 years of age, the incidence is 60-80%. Hepatitis patients in children under one year of age make up 0.17-10.8% of the total number of hospitalizations, with children under 6 months of age predominating. The peculiarities of the clinical course of viral hepatitis in children, the clinical picture of its various forms have been studied by many authors, and the impact of HBV on the entire organ system in the body and the manifestation of its clinical manifestations are not fully understood[2,5,7,9,12].

At the same time, the issues of early diagnosis of this pathology in young children, criteria for drug withdrawal, peculiarities of clinical course and prognosis of severe forms of viral hepatitis v (HBV) are insufficiently studied. It is known that it is very difficult to assess the severity of liver damage in young children, because often the severity of clinical manifestations of the disease in the norm does not correspond to the depth and prevalence of pathologic changes in the liver. The peculiarities of the specific clinic of a number of diseases of the ENT organs in HBV are characterized by treatment and prognosis of the diseases[1,3,6,8,9,10].

A number of authors have studied the ear and upper respiratory tract, noting that various disorders of the ear and upper respiratory tract often manifest earlier and more accurately than the symptoms of HBV and, therefore, may contribute to the detection of this disease. All investigators reported that severe HBV resulted in significantly more frequent complications of purulent inflammatory ear disease with mastoiditis and intracranial complications[1,4,8,11]

Purpose of the study: Assessment of the effect of immunocorrecting drugs on the correction of immune deficiency in children with acute middle otitis media developing against the background of chronic viral hepatitis B

Materials and methods of research. The scientific work is based on the results of a study of 120 children conducted in the ENT department of the regional children's multidisciplinary medical center during 2020-2023, treated with acute otitis media in patients diagnosed with chronic viral hepatitis B of childhood.

Patients were divided into 2 groups: a) the main group, i.e. children with peculiar effects on the immune system; b) the control group, i.e. children with peculiar effects on the immune system;

Research results. Patients with acute otitis media, depending on the types of treatment, were divided into 2 groups: comparison-control group (40 patients) and main group (80 patients). Patients of the comparison group were prescribed traditional therapeutic procedures in the form of a complex. 80 patients of the main group also received complex traditional treatment and, unlike the patients of the previous group, the immunomodulating drug IMMUN-5 was additionally used.

After treatment, the mean value of relative and absolute number of total lymphocytes in peripheral blood decreased to $36.30 \pm 0.98\%$ and 1822.2 ± 81.72 in 1 MCL, respectively, compared to $40.72 \pm 1.19\%$ and 2896.7 ± 155.57 in 1 MCL before treatment. So, we found that the total number of lymphocytes in peripheral blood decreased significantly.

The comparative analysis of the total proportion of T-lymphocytes after the therapy and immunocorrection showed that this index increased significantly compared to the pre-treatment values and amounted to $53.10 \pm 0.99\%$ against $47.40 \pm 1.05\%$. When examining the group of sick children after traditional therapy, we found a significant difference between the number of leukocytes and the absolute number of lymphocytes.

The study of quantitative characteristics of relative and absolute composition of T-helper/inducers against the background of immunocorrecting drug application showed the presence of reliable indicators. Thus, the average value of SD4+ in children increased after treatment and amounted to $26,56 \pm 0,73\%$ in comparison with $22,36 \pm 0,93\%$ before treatment. The absolute composition of CD4+ also changed and significantly decreased, which is associated with a decrease in the inflammatory process and a decrease in the number of leukocytes.

CD16+ expression in lymphocytes significantly decreased after treatment compared to the values before treatment. After treatment, the number of natural killer cells approached the initial value, which indicated a decrease in the inflammatory response. The absolute number of natural killer cells also decreased, which stood out significantly.

We observed a significant difference in relative and absolute indices in the group of children after traditional therapy, which once again indicates the presence of infectious pathology.

The index of T-helper cells in children infected with acute purulent middle otitis media developing on the background of chronic viral hepatitis B is a vivid example of the balance between the cells regulating the increase of immunity after treatment, which is associated with the improvement of the clinical picture of the acute disease in the inflammatory process.

Conclusion. Thus, we have revealed reliable differences in the state of immune tolerance in children after immunocorrective therapy, manifested by an increase in the content of the main immunoregulatory cells - T-lymphocytes, T-helper/inducers and a decrease in the number of natural killer cells. Immunological studies in patients infected with acute otitis media developed against the background of chronic viral hepatitis v showed that the introduction of immunotropic drug

contributed to positive clinical and immunodiagnosis of the disease, leading to the normalization of cellular, humoral and cytokine indicators in the body.

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