TO STUDY THE INDICATORS OF CELLULAR-HUMORAL IMMUNITY IN CHILDREN WITH CHRONIC VIRAL HEPATITIS B WITH ACUTE PURULENT OTITIS MEDIA

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Abstract: One of the important problems of modern otorhinolaryngology is the problem of hearing pathology in children with chronic viral hepatitis B. Arising in early childhood, acute purulent otitis media (APOM) often becomes recurrent and turns into a chronic form. This is due to the fact that the main indicators of the immune system in children with chronic viral hepatitis B with APOM at an early age are violated. The purpose of our work is to study the indicators of cellular-humoral immunity in young children suffering from OCD. Under our supervision in the ENT department of the regional children's hospital of Bukhara there were 32 children with APOM: under the age of 6 months -7, from 6 months to 1.5 years - 11, from 1.5 to 3 years -14.

Keywords: T-lymphocytes , immunoglobulin, inflammatory process, hepatitis B, statistically.

Various methods of assessing the immune status were used: the content of T-lymphocytes was determined by the E-ROCK method, B- lymphocytes by the EFS-ROCK method. The state of humoral immune status: the content of T-lymphocytes was determined by the E-ROCK method, B- lymphocytes by the EFS-ROCK method. The state of humoral immunity was assessed by the level of serum immunoglobulins in blood plasma. For quantitative determination of immunoglobulins of classes A, M, G, in blood serum, the method of simple radial immunodiffesis according to Mancini was used. The phagocytic activity of neutrophils was determined using a latex test. The control group (donors) consisted of 30 practically healthy children of the same age and gender.

The conducted studies showed that the relative number of T-lymphocytes in the control group donors was 57.3 +2.4%, B-lymphocytes – 16.4+ 1.8%. The phagocytic activity of neutrophils was at the level of 68.6+ 5.3%. Serum immunoglobulin levels (humoral immunity) were as follows: IgA – 108+ 21 mg%, IgM – 65+ 8 mg%, IgG-782+ 43 mg%.

In children with chronic viral hepatitis B with APOM, there was a violation of the functioning of the cellular link of immunity. The T-cell component of their immune system was reduced to 31.5+ 2.6%, which is 0.5 times lower than the control ($P < 0.001$). A decrease in the intensity of the phagocytic reaction was also revealed – up to 47,+4.7%. There were no statistically significant changes on the part of B-lymphocytes compared to the norm. The relative value of this parameter was at the level of 14.1+ 2.3% ($P<0.05$).

The study of the humoral immune response showed that the synthesis of the main classes of serum immunoglobulins increased in young children with APOM. The concentration of IgA increased to 124+11 mg ($P<0.001$), IgG to 936 + mg% ($P<0.05$).

In children with APOM, there was a 1.2- 1.9-fold increase in the production of IgA, IgM. A noticeable increase in the production of IgM and IgA in children suffering from APOM in postnatal and early age, apparently, is an unfavorable sign indicating intrauterine infection and the severity of the infectious and inflammatory process, which dictates the need for urgent sanitation of the purulent focus in the antrum. In patients with APOM, cellular

immunity was significantly suppressed. This was especially true of T-lymphocytes and phagocytic reaction. At the same time, there was an increase in the work of the humoral link of immunity, expressed in an increase in the level of the main classes of serum immunoglobulins, especially IgM. It can be assumed that the tension of the humoral link of immunity develops due to the insufficiency (deficiency) of the cellular link of the immune system.

Probably, disorders in the immune system are a "contributing factor", against which the development of the disease (APOM) and its complications of an inflammatory-septic nature is possible.

Thus, in children with chronic viral hepatitis B, suffering from APOM at an early age, the functioning of the main indicators of the intestinal-humoral link of immunity is disrupted. Deficiency of the cellular link is accompanied by tension of the humoral link of immunity.

References:

1. Boboyorov Sardor Uchqun o‘g‘li, & Boboyorova Hayitoy Uchqun qizi. (2023). CHRONIC HEART FAILURE IN SURKHANDARYA REGION AND MODERN METHODS OF ITS TREATMENT. Journal of Universal Science Research, 1(1), 12–16. Retrieved from http://universalpublishings.com/index.php/jusr/article/view/7
2. o’g’li, B. S. U. ., qizi, B. H. U. ., & o’g’li, B. S. O. . (2022). Surxondaryo Viloyatida Uchraydigan Surunkali Yurak Yetishmovchiligi Va Uni Davolashning Zamonaviy Usullari. Miasto Przyszłości, 30, 321–324. Retrieved from http://miastoprzyszlosci.com.pl/index.php/mp/article/view/931
3. Abdullayevich, B. E., & Uchqun o’g’li, B. S. (2021). TRANSITIONAL FEATURES OF ACUTE HERPETIC STOMATITIS IN CHILDREN AND MODERN APPROACHES TO TREATMENT. World Bulletin of Public Health, 1(1), 1-3.
4. Доцент, Ш. Г. Ф. . к. м. н. . ., Доцент, С. Н. Р. . к. м. н. . ., н., Х. Л. Н. . к. м. ., доцент, д. к. м. н. . ., Дилмуродович, А. ., & Учқунўғли, Б. С. (2021). Материалыизучение Влияния Пищевой Добавки “Мелла Круассан”На Эмбриогез. "ONLINE - CONFERENCES&Quot; PLATFORM, 178–179. Retrieved from http://papers.online-conferences.com/index.php/titfl/article/view/358