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CHANGES IN IMMUNOLOGICAL INDICATORS IN CHILDREN WITH CHRONIC VIRAL HEPATITIS B

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Abstract: Hepatitis B can be transmitted only through contact with biological materials of the patient. In many cases, the infection goes unnoticed by the patient, so the disease is detected as a result of laboratory analyzes or when characteristic symptoms appear. People who are treated in time will recover completely from hepatitis B disease and will form stable immunity against this disease.

Keywords: Diagnosis, Hepatitis B virus, Natural history, Review, Treatment, Vaccination

Hepatitis B is a viral disease, when the virus enters the body, it begins to have a negative effect on vital internal organs. Due to this disease, the liver is most often damaged, its damage is at the micro-cellular level. Hepatitis B can be asymptomatic or manifest with specific symptoms. In the chronic stage, this viral infection often leads to the development of liver cirrhosis and cancer.There are two phases of hepatitis B: acute and chronic.Acute hepatitis B is often a mild or asymptomatic illness that may clear on its own in a matter of weeks. The younger the patient, the less likely the virus will be cleared on its own, and the more likely the infection will become chronic. Children and adults who are not able to clear an HBV infection within six months are considered to have chronic hepatitis B.Chronic hepatitis B may be a serious illness that can cause long-term health problems. Over time, the liver may remain healthy or may develop progressive scarring, leading to cirrhosis. Chronic hepatitis B is the most common cause of liver cancer in the world.

In early childhood, HBV is acquired largely through mother-to-infant (vertical) or community-based (horizontal) transmission. Proposed modes of horizontal transmission include contact with open wounds; sharing of bath towels, food, dental cleaning materials; unsterilized multiple intramuscular injections; and biting of fingernails in conjunction with scratching the backs of carriers . Older nonimmunized children are susceptible to HBV infection through exposure to contaminated blood, intravenous drug use or sexual transmission . Immigrants from certain endemic areas (China, Southeast Asia, Eastern Europe, the Central Asian republics, most of the

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Middle East, Africa, the Amazon Basin, some Caribbean islands, and the Pacific Islands) and some Native Canadian populations are also at higher risk for HBV infection. Other high risk paediatric groups include residents of institutions for the developmentally disabled, patients receiving blood products (eg, hemophiliacs), hemodialysis patients and household contacts of HBV carriers . The risk of infection is greatly diminished by timely immunization.

Over the course of decades, chronic hepatitis B progresses through four stages — immune tolerance, immune clearance, inactive (latent), and reactivated — based on the behavior of the virus and how the child's immune system responds against it. The inactive carrier phase can last for years, often well into adulthood.

Statistics of this disease have been conducted for many years in all countries of the world, and the results are published in special mass media:

• In 90% of cases, acute hepatitis B detected in newborns turns into a chronic stage;

• In young people with normal immunity, the acute form of hepatitis B very rarely turns into a chronic stage - only in 1% of cases;

• Acute B group hepatitis detected in adults turns into a chronic stage in 10% of cases.

The main part of the disease is connected with contaminated tools (syringes, needles, dental tools, etc.), and a small part is connected with the transfusion of blood products that have not been tested for HBV. In addition, information was collected about the ways of "natural" transmission of the virus through close contact (mother-child), sexual intercourse, as well as other household injuries related to damage to the skin and mucous membranes. In particular, there are patients with a high risk of infection, those who participate in hemodialysis, as well as persons from the social group - male homosexuals, drug addicts, and prostitutes. Healthcare workers who interact with blood and blood products are also at high risk of HBV infection. The virus is present in all biological fluids of the human body. Therefore, it can be transmitted from mother to child through the placenta and breast milk. The latent period of viral hepatitis B is from 4 weeks to 6 months, on average it is 50 days. Since the virus enters the blood vessels, it spreads throughout the body through the blood and attaches to liver cells (hepatocytes). As soon as the virus attaches to hepatocytes, it does not have a pathological effect on it. The harmful effect begins with the detection of hepatitis B

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antigens by immune cells on the surface of hepatocytes. To put it simply, liver cell damage is due to immunopathological reasons.

The course of the disease

Hepatitis B is distinguished by the diversity of its pathological form (acute, moderately acute, chronic, persistent). This variety depends on how viral antigens affect hepatocyte cells. For example, in the acute form of the disease, the activity of T-helpers (immune cells) is suppressed, and in the chronic form, T-suppressors (immune cells) are involved in the process. The continuous suppression of the activity of T-suppressors creates the basis for the occurrence of an autoimmune reaction. Due to the inhibition (stopping) of T-helpers, it becomes difficult to identify viral antigens and less antibodies are produced that stop them. In addition, the virus has the ability to affect special macrophages

The clinical course of VGB is extensive and long-lasting compared to viral hepatitis A, acute dystrophy of the liver becomes chronic in 5-10% of cases. However, in most cases, the disease also takes the form of an infection without any symptoms. In some cases, extrahepatic symptoms are observed: urticaria and other skin rashes, arthritis, rarely glomerulonephritis and vasculitis. This condition is mainly observed when suffering from acute hepatitis B.

TYPES OF HEPATITIS B. Hepatitis B is classified as follows:

At lightning speed. In the most rapid form of hepatitis, brain swelling occurs in patients within a few hours, and the patient falls into a coma. In many cases, the life of patients ends tragically in a short period of time when this type of hepatitis reaches the clinical stage.

Sharp. In the acute form of hepatitis B, several stages of this disease are observed in patients. At first, the main symptoms appear, then the skin of the patients turns yellow. The last stage of the acute form of hepatitis B is characterized by liver failure.

Chronic. Hepatitis B enters the chronic stage 1-6 months after the virus enters the human body. These few months are the incubation period of the virus, after which specific symptoms and signs begin to appear.

The disease is treated with the use of vitamins, glucosteroids, interferons (antiviral activity) drugs, along with eating foods rich in protein and carbohydrates, but without fat. In this case, a doctor, a virologist or a hepatologist can apply various treatment measures depending on the general condition of the patient and the type of

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accompanying diseases. Even if you are infected with any type of hepatitis, you should avoid fried, salted, carcinogenic products, alcohol, and smoking, which are considered harmful to the liver! if the virus is detected, it is recommended to vaccinate one's spouse against the virus, taking into account the high probability of sexual transmission. This vaccination made it possible to have sex without any worries. The vaccine is stored for up to 5 years. Also, it should be noted that if the mother is infected with the virus, necessary measures have been introduced in the maternity hospitals of our country to prevent her from infecting the child during childbirth. And the child is vaccinated against hepatitis B within the first 24 hours after birth. Vaccination is carried out in babies three times according to the vaccination calendar. In the second and ninth months, the next vaccination is carried out in the baby. Vaccination is one of the most reliable ways to prevent disease!

CAUSES OF HEPATITIS B

The cause of the development of hepatitis B is the introduction of the virus into the human body. The disease is especially common in people with a weakened immune system under the influence of a number of negative factors (alcohol, nicotine, chemical and toxic substances, drugs). Immunity is also affected by other diseases, which occur due to metabolic disturbances in the body, lack of vitamins and minerals.

People suffering from hepatitis B should not be in social isolation, because this virus is not transmitted through airborne droplets. Anyone who comes into contact with a sick person should follow the necessary precautions and personal hygiene rules. According to the results of many years of research conducted all over the world, the course of this disease depends on how the patient was infected, as well as his age. If the patient is infected with hepatitis B in a natural way (for example, during sexual intercourse), in this case, there is a high risk of the disease progressing to a chronic stage. This form of hepatitis often occurs in young people, because they do not pay serious attention to their health and do not take measures to respond to alarming signals of the body.

References:

1. Tobe K, Matsuura K, Ogura T, et al. Horizontal transmission of hepatitis B virus among players of an American football team. Arch Intern Med. 2000;160:2541–5. [PubMed] [Google Scholar]

ISSN (E): 2181-4570 ResearchBib Impact Factor: 6,4 / 2023 SJIF(2023)-3,778 Volume-1, Issue-11

2. Martinson FE, Weigle KA, Royce RA, Weber DJ, Suchindran CM, Lemon SM. Risk factors for horizontal transmission of hepatitis B virus in a rural district in Ghana. Am J Epidemiol. 1998;147:478–87. [PubMed] [Google Scholar]

3. McIntosh ED, Bek MD, Cardona M, et al. Horizontal transmission of hepatitis B in a children's day-care centre: A preventable event. Aust N Z J Public Health. 1997;21:791–2. [PubMed] [Google Scholar]

4. Hsu SC, Chang MH, Ni YH, Hsu HY, Lee CY. Horizontal transmission of hepatitis B virus in children. J Pediatr Gastroenterol Nutr. 1993;16:66–9. [PubMed] [Google Scholar]

5. Lindberg J, Lindholm A. HBsAg-positive Swedish blood donors: Natural history and origin of infection. Scand J Infect Dis. 1988;20:377–82. [PubMed] [Google Scholar]

6. Rakhimova Khusnidakhan Abdukarimovna "Effective treatment of viral hepatitis B methods" fjsti.

7. Gaffarova V.F. Method of predicting psychorechological disorders in febrile convulsions in children. Methodical recommendation. 2021.-p.18.

8. Gaffarova V.F. Method for prediction of psycho-speech disorders during febril conversions in children.//ScienceAsia 48 2022. -P. 951-955 (Scopus)

9. Рахматова Д.И. Нетрадиционные методы терапии невропатии лицевого нерва на разных этапах развития заболевания // Проблемы биологии и медицины. – Самарканд, 2019. - №2 (107). - С. 180-183

10. Salomova N.Q. //Measures of early rehabilitation of speech disorders in patients with hemorrhagic and ischemic stroke// Europe's Journal of Psychology.2021. Vol. 17(3).-P.185-190. Graves R.C., Oehler K, Tingle L.E. Febrile seizures: risks, evaluation, and prognosis. Am Fam Physician 2012; 85(2): 149-153.

11. Rakhmatov A.A., Gaffarova V.f Immunological features in children with acute middle ear inflammatory on the background of chronic active hepatitis// Тиббиетда янги кун. – Ташкент, 2023. - №6(56) – С. 227-230

12. Rakhmatov A.A., Narzullaev N.U. The role of chronic active hepatitis in children in the clinical course of acute otitis media// Тиббиетда янги кун. – Ташкент, 2021. - №2(34) – С. 21-25

13.RakhmatovaD.I. Feature soft heclinical course of Facial Neuropathyin Patients with other somatic pathologies // Тиббиётдаянгикун. – Бухара, 2020. - №2(30). - С. 515-518.

14. Gaffarova V.F. Early prevention of psycho-speech disorders during febril conversions in children.// European journal of innovation in nonformal education. Volume 2 Issue 11 November 2022. –P. 74-79.