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Modern Therapy of Viral Hepatitis

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Abstract: Viral hepatitis (VH) is a large group of diseases that differ in etiology, epidemiology, and clinical presentation with predominant liver damage. Currently, the following independent forms of VG are known, which are usually denoted by letters of the Latin alphabet: A, B, C, D, E, G, TTV. The greatest importance for practical health care is represented by hepatitis with parenteral (or hemocontact) infection and, above all, hepatitis caused by viruses B, C, D. This is due to the fact that when infected with these viruses, the course of the disease is usually more severe than with hepatitis A and E, lightning-fast (malignant) infections are possible.

Keywords: etiotropic treatment, hepatitis, clinic, treatment, drugs.

Introduction

The frequency of chronic acute hepatitis C infection reaches 80%, acute hepatitis B-in 10-15% of cases, and in B+D infection-up to 90%. Progression of chronic hepatitis b to cirrhosis occurs with varying frequency and varies with HS and HS in 40-60% of patients, with GO-in 90% of patients with acute hepatitis [1-3]. Patients with chronic hepatitis have a high risk of developing hepatocellular carcinoma, which kills more than a million people worldwide every year[4-7]. Chronic hepatitis is a prolonged (more than 6 months) pathological process in the liver caused by the persistence of hepatitis B, C, and D viruses, with a genetically determined deficiency of cellular and macrophage immunity[8-10]. It should be noted that clinical symptoms may not always serve as a reliable criterion for assessing the severity of chronic viral hepatitis (CVI) [11-14]. In many cases, they are poorly expressedand poorly specific. Often, obvious clinical signs (malaise, weakness, fatigue, decreased appetite, nausea, heaviness in the right hypochondrium, abdominal pain, muscle or joint pain, enlarged liver) are found only at a far advanced stage of the disease and even with cirrhosis [15-17]. In the 70s and 80s of the XX century, the search for etiotropic therapy of viral hepatitis was launched, aimed at suppressing the replication of pathogenic viruses and eliminating them [18-20]. First of all, these drugs include interferon preparations, which have been the basic ones for the treatment of acute and chronic viral hepatitis for the past 20 years. The mechanism of action of IFN in viral hepatitis is primarily related to its antiviral and immunomodulatory effects. Due to this systemic effect, viral replication suppression is achieved (reduction of adsorption, inhibition of deproteinization, induction of cell nucleases and proteases, stimulation of interferogenesis) with simultaneous stimulation of HLA hepatocytes, amplification of killer cells and cytotoxic T-lymphocytes, and production of neutralizing antibodies. Antiviral drugs used for the treatment of VH, as wellas their effective delivery[21-24].

Table 1. Antiviral drugs used in the treatment of viral hepatitis

Type of drug	Drug group	Medication	The effect of the drug
Chemotherapy drugs	Nucleoside analogues	Ribavirin Lamivudine Famciclovir Acyclovir	Antivirus software
IFNS Natural andrecombinant a-IFN R-IFN	Antiviral Immunomodulatory IFN Inductors	Fluorenones Acridanones Amixin Cycloferon	Neovir mmunostimulators
Immunomodulators	Cytokines	Tumor Necrosis	Immunomodulatory

	Interleukin- 1 Interleukin-2 Interleukin-12	Factor	

Recombinant interferons include IFN α-2a (roferon-A, Switzerland), interferon-α>2b (intron-A, USA), human leukocyte IFN-a (reaferon, Russia), and viferon. The list of IFN drugs offered for the treatment of VH is constantly expanding. There are new drugs - alfaferon (alfa-wasserman, Italy), recombinant α-2 IFN-heberon-α-R. Introduction of long-acting (pegeled) recombinant alpha- IFN drugs-pegasys (Switzerland) and Peg Intron (USA) - into clinical practice is very promising, which makes it convenient to administer (once a week) and individually select the dose taking into account the patient's weight [25-28]. Indications for the appointment of etiotropic therapy for PRand viral hepatitis are: laboratory and morphologicallyproven hepatitis B or C presence of markers of hepatitis B virus replication (determination of HBV and HBeAg DNA in blood serum) or hepatitis C virus (determination of RNA of the virus and its genotypes) ; if possible, of viruses in the blood persistently elevated ALT level absence of decompensated portal hypertension [29-30]. Contraindications to the use of alpha-IFN are: hypersensitivity to any of the components cirrhosis and decompensation of liver disease severecardio vascular diseasesevere renal failure epilepsy previously long-term immunosuppressive therapy autoimmune disease in the anamnesis (hepatitis, thyroiditis); diabetes mellitus, drug addiction. But the appointment of IFN is associated with certain difficulties, namely, the side toxic effect of the drug: flu-like syndrome, leuko and thrombocytopenia, hypo orhyperthyroidism, the formation of neutralizing antibodies to IFN, and deterioration of liver function indicators [31-33]. Depending on the dose and individual sensitivity, weakness, drowsiness, fatigue, and delayed reaction may occur. The severity and persistence of these events may require a dose reduction, and sometimes a change in the rhythm of drug administration. As a rule, these phenomena can be corrected or disappear on their own. Insufficient effectiveness of IFN in the treatment of VH can be observed in cholestasis (results improve with simultaneous administration), excessive iron deposition in liver tissue (removal of iron by repeated bloodletting increases the effectiveness of treatment), the formation of antibodies to IFN. The presence of severe steatosis, alcoholism, drug addiction, mixed hepatitis, infection with the HS 1b genotype virus, high viremia, the presence of genetic variability, and low ALT worsen the prognosis of treatment. In chronic hepatitis B infection with a mutant strain (HBe-negative), mixed infections with delta virus or HS also worsen the effectiveness of interferon therapy. According to the literature, it is promising not only to find ways to overcome interferon resistance in the reactivation phase, but also to prescribe it early in the acute phase. In CHC, positive treatment results are achieved in the first year of clinically manifest therapy. stages. In the latent phase of HCV infection, although it precedes the reactivation phase, patients are refractory to interferon [34-36].

The greatest effect of treatment with interferon GS can be achieved when it is prescribed as early as possible after infection. To increase the effectiveness of interferon therapy in patients with chronic hepatitis (CH) with a low degree of activity, a short preliminary course of corticosteroid treatment (0.5-1mg/kg) is recommended for 2 weeks with their rapid cancellation, which leads to the so-called immune "rebound", i.e. restoration of immune competence necessary for virus elimination. Tables 2 and 3 show the dosage and administration regimens of the most commonly used drugs for the treatment of IH. The results of the effectiveness of interferon therapy are evaluated by biochemical and virological tests, namely, the result of treatment is consideredpositive if: normalization of ALT, disappearance of HBeAg and the appearance of antibodies to HBe (seroconversion), disappearance of HBV-DNA in HB and HCVPHK in HS, reduction of the phenomena of lymphohistiocytic infiltration along the portal tracts during morphological examination. In evaluating the effectiveness of interferon therapy, the time factor is of great importance, since it is important not only to obtain a response to treatment, but also to maintain it stably. Therefore, the biochemical and virological response to treatment is evaluated twice: immediately after the end of treatment and after a certain time after its completion (at least 6 months) [37-39]. It should be remembered that IFN often induces the formation of antibodies (in 20-60% of cases). In the treatment of acute HS, the positive effect of intron A treatment is achieved in 95-97% of cases, whereas only 30-40% of patients with CHB and CHC have a

stable response (lack of viral replication and normal ALT levels 6 or more months after the end of antiviral therapy). The sustained response to intron A treatment in patients with ХГ-D is about 10%. Given the insufficient effectiveness of IFN monotherapy, an intensive search led specialists to use a number of chemotherapy drugs, in particular nucleoside analogues, for VH.

Their mechanism of action consists in blocking the synthesis of viral DNA and RNA by replacing natural nucleosides and, thereby, inhibiting viral replication. These include lamivudine and ribavirin (virazol, rebetol, ribamidil, vidarabine, etc.). The most studied of these drugs is lamivudine (zeffix, UK), used for the treatment of HBV. The mechanism of action of lamivudine is based on its ability to inhibit the synthesis of RNA-dependent HBV DNA polymerase. Lamivudine can be used as monotherapy, but after its withdrawal, the relapse rate is too high. The effectiveness of antiviral therapy increases with the appointment of combined treatment-lamivudine (100-300 mg /day. within 12 weeks) + interferon. In the treatment of hepatitis C, combination therapy is most often used-IFN (intron A) with ribavirin (virazol). Ribavirin is prescribed at a dose of 1000-1200 mg /day. in 2 doses for 12-24-48 weeks. The drug is well tolerated. In the initial period of acute hepatitis C, the appointment of phosphogliv is justified (domestic drug), which has not only hepatoprotective properties,but also. It also has antiviral properties. Phosphogliv is prescribed 1-2 capsules 3 times a day for 1 month. Extensive systemic tests of a group of IFN inducers of various types (cycloferon, amixin, neovir, ridostin) have shown that their antiviral activity generally coincides with the previously identified activity of endogenous IFN. Cycloferon is administered intramuscularly or intravenously once a day in a dose of 2 ml (250 mg) on the 1st-2nd-4th-6th-8th-10th-12th day of the course of treatment. To consolidate the effect, it is possible to repeat the course of treatment. Intravenously, the drug is prescribed in 4 ml - 500 mg according to the same scheme. For children, cycloferon is prescribed at the rate of 10 mg / kg of body weight once a day with an interval of 48-72 hours, a course of 15 to 30 injections. In OGV, the average duration of treatment is 23 days (1course - 10 injections), in chronic hepatitis - 70 days (3 courses of 10 injections of 4 ml-500 mg, IV).

Amixin is the first oral inducer of endogenous interferons a, P, and y. As a polyclonal stimulator, amixin induces the synthesis of IFN types 1 and 2 in T lymphocytes, penetrates the blood-brain barrier, and induces interferon in brain cells. For the treatment of acute hepatitis B, C, B+C, amixin is prescribed in one course according to the scheme: on the first day - 2 tablets of 0.125 mg, then every 48 hours 0.125 mg (10-12 tablets per course). For the treatment of chronic hepatitis B, C, and B+C, 4 to 6 courses of 10-12 tablets are prescribed (the total number is from 40-48 to 60-72 tablets). In pediatric practice, only viferon is widely used, since it is the only drug from the IFN group that is approved for the treatment of children (including newborns) with various infectious and inflammatory diseases. Other IFN drugs are prescribed to older children with parental consent. In children, the use of combined therapy regimens is considered promising - simultaneous administration of IFN and an IFN inducer (for example, viferon + cycloferon) in order to prevent "slipping remission", which is often achieved immediately after treatment. Thus, the treatment of viral hepatitis in children is a complex and urgent task, but even now many researchers claim that the future belongs to the combined use of medicines, in which we cannot disagree with them.

Literature

1. World Health Organization. Global hepatitis report. Geneva, Switzerland; 2017. (Electronic resource). URL: http://www.who.int/hepatitis/publications/global-hepatitis- eport2017/en/ (access date: 11.09.2019).
2. WHO fact sheet, July 2019. Social aspects of population health. 2019;65(4). (In Russian).
3. Камилов Ф.Х. и др. Частота встречаемости различных этиологических форм хронических вирусных гепатитов и циррозов печени. Инфекция, иммунитет и фармакология. 2010. (1-2):102-105.

4. Ахмедова М.Д., Ташпулатова Ш.А., Ихтиярова Г.А., Каримова М.Т. Хронические вирусные гепатиты В и D у беременных: распространенность, течение и исходы (обзор литературы). Журнал инфектологии. 2021;13(2):29-37.
5. Mukhammadieva M.I. (2022). Modern Clinical and Biochemical Characteristics of Liver Cirrhosis Patients of Viral Etiology with Spontaneous Bacterial Peritonitis //Texas Journal of Medical Science. – 2022.- P. 86-90.
6. Oblokulov Abdurashid Rakhimovich Mukhammadieva Musharraf Ibrokhimovna Sanokulova Sitora Avazovna Khadieva Dora Isakovna. (2023).CLINICAL AND LABORATORY FEATURES OF SPONTANEOUS BACTERIAL PERITONITIS IN PATIENTS WITH VIRAL LIVER CIRRHOSIS. Journal of Advanced Zoology, 44(S2), 3744–3750. Retrieved from

   http://www.jazindia.com/index.php/jaz/article/view/1716
7. Tukhtaevna, N. Z. (2023). The Relationship of Tuberculosis and Pneumonia in Children, Clinical Characteristics. *INTERNATIONAL JOURNAL OF HEALTH SYSTEMS AND MEDICAL SCIENCES*, *2*(5), 168-172.
8. Ibrokhimovna, M. M. . (2024). Improvement of Primary Prophylaxis and Treatment of Spontaneous Bacterial Peritonitis Complicated in Virus Etiology Liver Cirrhosis. Journal of Intellectual Property and Human Rights, 3(4), 19–25. Retrieved from http://journals.academiczone.net/index.php/jiphr/article/view/2506
9. Tuxtaboyevna, N. Z. (2023). The Whole Truth about Mycoplasma through the Eyes of a Pediatrician. *AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI*, *2*(12), 348-354.
10. Oblokulov Abdurashid Rakhimovich Mukhammadieva Musharraf Ibrokhimovna Sanokulova Sitora Avazovna Khadieva Dora Isakovna. (2023). CLINICAL AND LABORATORY FEATURES OF SPONTANEOUS BACTERIAL PERITONITIS IN PATIENTS WITH VIRAL LIVER CIRRHOSIS. Journal of Advanced Zoology, 44(S2), 3744–3750. Retrieved from http://www.jazindia.com/index.php/jaz/article/view/1716
11. Mukhammadieva M.I. (2022). Modern clinical and biochemical characteristics of liver cirrhosis patients of viral etiology with spontaneous bacterial peritonitis //Texas Journal of Medical Science. – 2022.- P. 86-90
12. Abdulloev Mukhriddin Ziyodulloevich. (2023). Modern Therapy of Viral Hepatitis. Texas Journal of Medical Science, 26, 66–69. Retrieved from https://www.zienjournals.com/index.php/tjms/article/view/4636
13. Abdulloev Mukhriddin Ziyodulloevich. (2023). Modern Therapy of Viral Hepatitis. Texas Journal of Medical Science, 26, 66–69. Retrieved from https://www.zienjournals.com/index.php/tjms/article/view/4636
14. Mukhammadieva M.I. (2023). Вирус этиологияли жигар циррози беморларида спонтан бактериал перитонит билан асоратланишнинг профилактикаси ва давосини такомиллаштириш//Oriental Renaissance: Innovative, educational, natural and social sciences. - 2023.-P.947-953.
15. Oblokulov A.R., M.I.Mukhammadieva.(2022). Clinical and biochemical characteristics of liver cirrhosis patients of viral etiology with spontaneous bacterial peritonitis//Academicia Globe: Indersciense Research.-2022.- P. 210-216.
16. M. R., M. ., & S. A., S. . (2022). Features of the Course of Contagious Giardiasis Associated with Giardiasis. Miasto Przyszłości, 26, 186–189. Retrieved from https://miastoprzyszlosci.com.pl/index.php/mp/article/view/464
17. To'htayevna, N. Z. (2023). BOLALAR VA O'SMIRLARDA REYTER SINDROMI. *Journal of new century innovations*, *23*(2), 3-6.

18. A. R., O., M. I., M., & B. O., K. (2024). Improvement of Primary Prophylaxis and Treatment of Spontaneous Bacterial Peritonitis Complicated in Virus Etiology Liver Cirrhosis. *International Journal of Integrative and Modern Medicine*, *2*(5), 85–91. Retrieved from https://medicaljournals.eu/index.php/IJIMM/article/view/303

19. Sanokulova Sitora Avazovna. (2023). Factors of Development of Hepatorenal Syndrome in Patients with Liver Cirrhosis of Viral Etiology. Texas Journal of Medical Science, 26, 4–9. Retrieved from https://www.zienjournals.com/index.php/tjms/article/view/4611

20. Авазовна, С. С. . (2023). Факторы Развития Гепаторенального Синдрома У Больных Циррозом Печени Вирусной Этиологии. AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI, 2(12), 1–8. Retrieved from https://www.sciencebox.uz/index.php/amaltibbiyot/article/view/8673

21. Санокулова, Ситора Авазовна ОСОБЕННОСТИ ТЕЧЕНИЯ КОНТОГИОЗНЫХ ГЕЛЬМИНТОВ АССОЦИИРОВАННОГО С ЛЯМБЛИОЗОМ // ORIENSS. 2023. №2. URL: https://cyberleninka.ru/article/n/ocobennosti-techeniya-kontogioznyh-gelmintov-assotsiirovannogo-s-lyambliozom (дата обращения: 12.12.2023).

22. Jalilova, A.S. (2022). THE SPREAD OF CIRRHOSIS OF THE LIVER BY ETIOLOGICAL FACTORS. Oriental renaissance: Innovative, educational, natural and social sciences, 2 (6), 253-257.

23. Nabiyeva, Z. . (2023). CLINICAL MANIFESTATIONS OF CHRONIC DISEASES ОРГАНОВ OF THE DIGESTIVE SYSTEM IN CHILDREN. Инновационные исследования в современном мире: теория и практика, 2(15), 27–28. извлечено от https://in-academy.uz/index.php/zdit/article/view/13239

24. Облокулов, А., & Муҳаммадиева, М. (2022). КЛИНИКО-ЛАБОРАТОРНАЯ ХАРАКТЕРИСТИКА СПОНТАННОГО БАКТЕРИАЛЬНОГО ПЕРИТОНИТА ПРИ ЦИРРОЗЕ ПЕЧЕНИ ВИРУСНОЙ ЭТИОЛОГИИИ. Журнал вестник врача, 1(3), 66–69. извлечено от https://inlibrary.uz/index.php/doctors_herald/article/view/2016

25. Oblokulova Z.I, Oblokulov A.R, & Jalilova A.S. (2022). Diagnostic Significance of Hepatic Fibrosis in Patients with Extrahepatic Chronic Viral Hepatitis C. Central Asian Journal of Medical and Natural Science, 3(3), 438-443. Retrieved from https://www.cajmns.centralasianstudies.org/index.php/CAJMNS/article/view/806

26. Aslonova.M.R. (2022). Determination of suicidality against the background of Parasitic Diseases in children // INTERNATIONAL JOURNAL OF PHILOSOPHICAL STUDIES AND SOCIAL SCIENCES. – 2022.- P. 9-12.

27. Jalilova, A. S. (2022). Approaches to Etiotropic Therapy of Covid-19 in Outpatient Patients. INTERNATIONAL JOURNAL OF HEALTH SYSTEMS AND MEDICAL SCIENCES, 1(1), 41-44.

28. Mukhtarova Sh.A. (2022) Age-related features of clinical manifestations of giardiasis // International journal of medical sciences and clinical research 2022;17-21.

29. Jalilova A.S. (2022). FEATURES OF CLINICAL MANIFESTATIONS OF CYTOMEGALOVIRUS INFECTION IN CHILDREN. International Journal of Medical Sciences And Clinical Research, 2(09), 12–16. https://doi.org/10.37547/ijmscr/Volume02Issue09-04

30. Raximovich, O. A., Sadilloyevna, J. A., Abdulloyevna, M. S., & Farxodovich , R. F. (2022). Microbiological Indicators of Patients with Confirmed Sars-Cov-2 - Infection. Central Asian Journal of Medical and Natural Science, 3(2), 289-294. https://doi.org/10.17605/OSF.IO/9CFP6

31. Жалилова А. С. Дилноза Саётовна Косимова. Клинико–Лабораторная Характеристика Пациентов С Covid-19 И Предиктор Антибактериальной Терапии //CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES. – 2021. – С. 81-86.

32. Abdulloyevna, M. S. . (2023). Tez-Tez Kasal Bo'lgan Bolalarda O'tkir Respirator Kasalliklarning Klinik-Laboratoriya Xususiyatlari. AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI, 2(12), 29–34. Retrieved from https://sciencebox.uz/index.php/amaltibbiyot/article/view/8680

33. Muxtorova, S. A. (2022). Clinical and laboratoriya features of acute respiratory disease in frequently ill children. Web of scientist: International scientific research journal, 1026-1030.

34. Mukhtarova, S. H. (2022). A.(2022) AGE-RELATED FEATURES OF CLINICAL MANIFESTATIONS OF GIARDIASIS. INTERNATIONAL JOURNAL OF MEDICAL SCIENCES AND CLINICAL RESEARCH, 17-21.

35. Mukhtorova Shokhida Abdulloevna. (2023). Microbiological Indicators of Patients Infected with SarsCov-2. Texas Journal of Medical Science, 21, 41–45. Retrieved from https://www.zienjournals.com/index.php/tjms/article/view/4116

36. Mukhtorova Shokhida Abdulloevna. (2023). CYTOMEGALOVIRUS INFECTIONS IN CHILDREN WITH PRIMARY AND SECONDARY IMMUNE DEFICIENCIES. Academia Science Repository, 4(06), 23–28. Retrieved from http://academiascience.com/index.php/repo/article/view/832

37. Aslonova.M.R. (2023). VITAMIN DEFICIENCY CASES RESULTING FROM PARASITIC DISEASES // Galaxy International Interdisciplinary Research Journal.-2023.-P. 404-409

38. Mukhtorova Shokhida Abdulloevna. (2023). CHARACTERISTIC FEATURES OF THE COURSE OF CITOMEGALOVIRUS INFECTION IN CHILDREN. Galaxy International Interdisciplinary Research Journal, 11(4), 484–487. Retrieved from https://giirj.com/index.php/giirj/article/view/5150..

39. Raximovich, O. A., Sadilloyevna, J. A., Abdulloyevna, M. S., & Farxodovich , R. F. (2022). Microbiological Indicators of Patients with Confirmed Sars-Cov-2 - Infection. *Central Asian Journal of Medical and Natural Science*, *3*(2), 289-294. https://doi.org/10.17605/OSF.IO/9CFP6

40. Ш. А, М. (2023). Профилактика Сезонного Распространения Орви Среди Детей Раннего Возраста. AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI, 2(12), 22–28. Retrieved from https://www.sciencebox.uz/index.php/amaltibbiyot/article/view/8678