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USE OF HEPATOPROTECTOR IN COMPLEX TREATMENT OF PATIENTS WITH CHRONIC VIRAL HEPATITIS C

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Abstract
The article presents an analysis of clinical manifestations, laboratory parameters, the nature and frequency of adverse reactions, and the frequency of a positive virological response in 20 patients with chronic viral hepatitis C (HCV) who received combined antiviral therapy with pegintron and ribavirin with the inclusion of a hepatoprotector, 2 tablets 3 times a day, for 3 months compared with a control group of HCV patients who were prescribed similar antiviral therapy without a hepatoprotector. It was found that after treatment in the main group of patients, clinical manifestations of hepatitis were relieved 7-10 days earlier, cytolytic syndrome normalized, a positive virological response increased by 20%, and the frequency of severe adverse reactions of interferon therapy requiring treatment interruption decreased by 10%. A conclusion was made about the advisability of including the hepatoprotector Livomed in the course of antiviral therapy in patients with HCV.

Keywords: Liver damage, clinical manifestations, liver function tests, cirrhosis, hepatoprotector.

Introduction

The problem of chronic viral liver damage remains extremely relevant, this is due to the high prevalence and difficulties in treating this pathology. In particular, according to American authors [5], more than 3.2 million people in the USA suffer from chronic viral hepatitis C (HCV), and the main cause of the disease is drug use. Treatment of HCV still presents great difficulties, which is associated with an insufficiently satisfactory procedure for achieving the degree of virological response [3], high cost of treatment [3-6] and a high frequency of complications of interferon therapy [7-9]. Therefore, along with etiotropic therapy for the restoration of the liver parenchyma, drugs have begun to be included in the antiviral treatment regimen for HCV, which are united by the general concept of hepatoprotectors [4-6]. Specialists pay special attention to hepatoprotectors of plant origin [4], as a rule, in addition to individual intolerance, do not give side effects. Therefore, the aim of this study is to evaluate the efficacy and tolerability of the hepatoprotector Livomed from Harasha (India) in the treatment of patients with HCV.

Material and Methods

The study included 20 HCV patients aged 19-37 years, 15 men, 5 women (Group 1). They received combination antiviral therapy: pegylated interferon (INF) at a dose of 150 to 180 mcg subcutaneously once a week and ribavirin at a dose of 800 mg to 1000 mg per day depending on

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body weight, virus genotype and viral load, as well as additionally the hepatoprotector Livomed 2 tablets 3 times a day for 3 months. The 2nd group of HCV patients (control) included 10 people of comparable age who received a similar antiviral course of treatment without the inclusion of a hepatoprotector.

Verification of the HCV diagnosis was carried out using clinical manifestations, laboratory, instrumental and histological studies. All patients underwent a general clinical blood test (hemoglobin, erythrocytes, hematocrit, leukocytes, platelets, blood formula), biochemical studies (ALT, AST, glucose, total and direct bilirubin, albumin, alkaline phosphatase (ALP), γ-glutamyl transpeptidase (γ-GTP), creatinine, iron), viral markers - anti-HCV (enzyme immunoassay) and HCV RNA (qualitatively and quantitatively using polymerase chain reaction) in the molecular diagnostics laboratory of the Central Research Institute of Epidemiology. Patients were comprehensively examined upon admission, i.e. before treatment, 2 and 3 months after treatment.

Results and Discussion

Of the clinical manifestations, the most frequently recorded was asthenovegetative syndrome (90%), which was expressed by general weakness, sleep disturbance, sometimes irritability, less frequently diagnosed (70%) was dyspeptic syndrome, which was accompanied by decreased appetite, nausea, unstable stool. Pain syndrome was observed in 10 (33.3%) patients, mainly in the form of a feeling of heaviness in the right hypochondrium, less often dull pain after physical exertion. Hepatomegaly was noted in 15 (50%) patients, splenomegaly in 9 (30%) patients. Cytolytic syndrome in the form of aminotransferase activity on average exceeded normal values by 2-3 times, the activity of cholestasis enzymes: alkaline phosphatase and GGT by 1.5-2 times, total bilirubin was increased by 2.5 times compared to the norm due to both indirect and direct fractions, the albumin content was normal. All "general clinical blood test parameters before treatment were also within normal limits.

In the main (1st) group of patients, both cytolytic syndrome and cholestasis enzymes and serum bilirubin levels returned to normal 3 weeks after the start of treatment, while in the control group they returned to normal after 1 month. In addition, as a result of treatment, HCV RNA disappeared in 18 (90%) patients of the 1st group after 2 months, and in 2 (10%) patients the therapy was ineffective. As for the control group of patients, a positive virological response was obtained in 7 (40%) patients after 3 months of treatment, and in 3 (30%) patients the therapy was unsuccessful. An analysis of the complications that developed in patients of both groups is given.

In 100% of cases, flu-like syndrome and fever were observed in both groups. As for other adverse reactions of interferon therapy, they already differed in the studied groups of patients. In particular, leukopenia was observed 30% more often, and thrombocytopenia 25% more often in the control group of patients. In the same group, arthralgia was 20% more common, hair loss 15%, muscle and headaches 20 and 25%, respectively, nausea 25%. In addition, in 1 (10%) patient who responded to INF after 2 months of treatment, the therapy was discontinued due to severe fever up to 39.5°C for each interferon injection, despite preliminary administration of paracetamol. No adverse reactions were observed in patients of the 1st group who received Livomed. Clinical improvement of the general well-being of patients in the 1st group also occurred earlier than in patients in the control group. In particular, 7-10 days earlier, patients in the 1st group noted a decrease in general weakness, normalization of sleep and stool, and the liver and spleen also contracted.

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webofjournals.com/index.php/5

The most pronounced positive effect in the 3-month treatment of patients with HCV group 1 is apparently due to the hepatoprotector, which improved both the functional state of the liver and reduced the phenomena of fatty degeneration. This position does not contradict other literary sources. In particular, it is currently believed that the pathogenesis of HCV is associated with a defect in the antiviral response and the development of intrahepatic oxidative stress [6]. The latter, together with lipid peroxidation, plays a major role in the accumulation of fats in the liver, i.e. its steatosis, which leads to necrobiotic processes in hepatocytes and their death [3]. Therefore, in addition to interferon, various hepatoprotectors of plant origin and antioxidants are now used in the treatment of HCV, demonstrating their positive effect on the liver [1, 4, 6]. The data we obtained on the frequency and nature of adverse reactions to interferon therapy in patients with HCV also do not contradict other literary sources. Moreover, as the course of interferon therapy is prolonged (6 and 12 months), the number of various severe side effects increases. Thus, P.A. Gladin et al. [2] noted cases of encephalopathy with memory disorders during treatment of a patient with HCV with pegintron. T. Okanue et al. [7] treated chronic hepatitis C with high doses of interferon (from 6 to 10 IU per day in 987 patients), but were forced to reduce the dose to 3 IU 3 times a week after 2 weeks, since diabetes mellitus, thyroiditis, rheumatoid arthritis, melena, depressive syndrome and even hearing loss developed as complications. According to D. Samuel et al. [9], combination therapy with interferon in combination with ribavirin in 43% of cases leads to treatment discontinuation due to side effects.

Thus, the studies conducted in the clinic on the use of a plant-based hepatoprotector in the complex treatment of patients with chronic viral hepatitis C allow us to draw the following conclusions.

Conclusions

1. The use of a hepatoprotector in complex antiviral therapy of patients with viral hepatitis C (RNA+) increases the positive virological response to treatment by 20% and reduces the incidence of severe adverse reactions to interferon therapy requiring treatment interruption by 10%.
2. The hepatoprotector is well tolerated by patients, and its positive effect is due to the improvement of the functional state of the liver, as evidenced by earlier, on average by 7-10 days, relief of clinical manifestations of hepatitis and normalization of cytolytic syndrome, in connection with which it can be recommended as an additional drug in the course of antiviral therapy for hepatitis C.

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