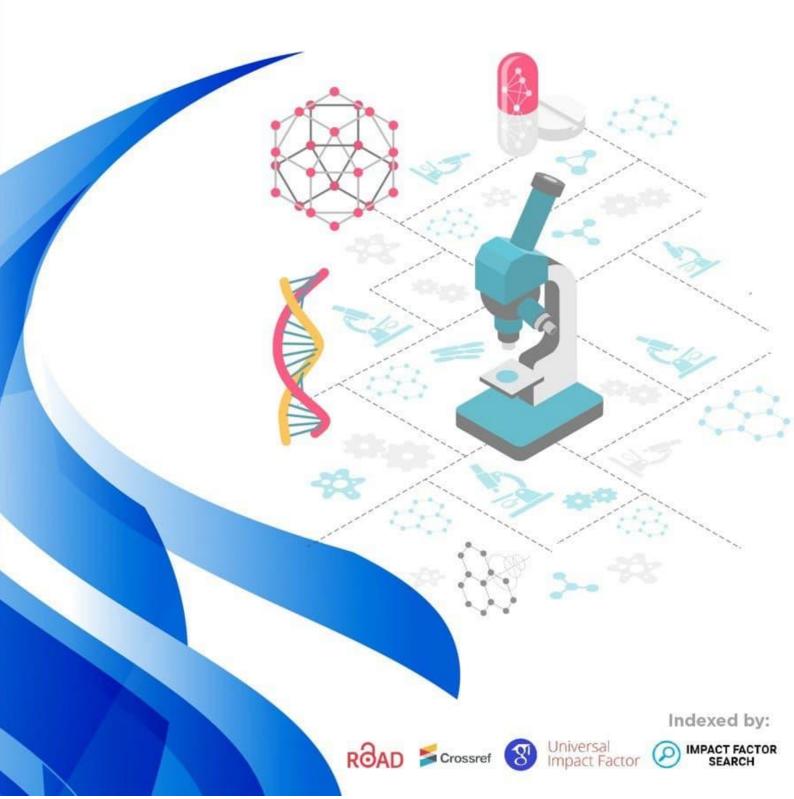
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DEVELOPMENT OF ANEMIA IN PATIENTS WITH CHRONIC HEPATITIS C ON THE BACKGROUND OF COMBINED ANTIVIRAL THERAPY

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Relevance. Chronic hepatitis C is one of the most common human infectious diseases. Hepatitis C virus infection is the leading cause of cirrhosis and liver cancer, which affects an estimated 80 million patients with chronic hepatitis C virus (CVHC) worldwide and kills about 0.7 million people annually, according to WHO. The use of combination antiviral therapy makes it possible to achieve improvements in patients with chronic hepatitis C, however, some patients develop side effects during treatment, a special place among which is occupied by anemia.

The development of severe hematological syndromes in patients during combined antiviral therapy (CPT) for CHC is a very urgent problem [2, 4, 5]. Among the most dangerous complications in this case, one can especially single out CBT-associated anemia [1].

Purpose of the study: to study the main aspects of the development of CPT-associated anemia in patients with chronic hepatitis C.

Material and methods. The study included 57 CHC patients who had indications for CBT. 50.9% of patients received ribavirin in combination with pegylated IFN-α (peg-IFN-α), and 49.1% in combination with "short" IFN-α. Determination of the content of erythrocytes in the blood and the concentration of hemoglobin (Hb) was carried out by the method of automatic hematological analysis. The serum concentration of endogenous erythropoietin (EPO) was studied by automatic chemiluminescent immunoassay (IMMULITE 2000, USA-Germany).

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Results and discussion. Completely completed the course of CBT 41 patients with CHC. Sustained virologic response (SVR) was achieved in 39 patients. Among those receiving pegIFN- α , the SVR rate was 55.17%; receiving "short" IFN- α - 82.1%. In 2 patients, therapy was discontinued after 8 weeks of treatment due to the development of severe hematological complications of CPT. In 14 patients with CHC, the absence of an early virological response was recorded, in 2 of them, the development of severe complications from the blood system was observed in parallel. According to the classification of the European Society of Medical Oncology, mild (Hb 10.0-11.9 g / dl), moderate (Hb 8.0-9.9 g / dl) and severe (Hb < 8.0 g / dl) degrees of anemia are distinguished. In our case, the development of CBT-associated anemia was noted in 36.8% of patients, while a mild degree was noted in 12.28%; moderate - at 19, 3% and severe - in 5.26% of cases. All patients, depending on the minimum concentration of Hb (Hbmin), recorded for the entire period of CPT, were divided into three groups. Group 1 (n=35) included those whose Hbmin remained within the acceptable range. Group 2 (n=6) consisted of patients with mild CBT-associated anemia. Group 3 (n=12) included patients with moderate and severe CBT-associated anemia.

At the start of CPT, the average EPO level in the 1st group was 7.2±1.2 mU/ml, in the 2nd group - 12.3±2.1 mU/ml, and in the 3rd group - 30.7±5 .3 honey/ml. After the end of therapy, its level increased in all groups. However, the severity of the identified changes was ambiguous. So, in the 1st group, the average EPO level increased from the initial one by 7.7; in the 2nd - in 4.3; and in the 3rd - only 1.9 times.

Findings. The decrease in the peripheral blood of CHC patients in the partial pressure of O2 leads to a compensatory increase in the production of endogenous EPO. Under conditions of increased load on the erythron system due to the intake of antiviral drugs, the above mechanism of erythropoiesis regulation becomes

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insufficiently effective, which may be one of the key points in the development of CPT-associated anemia.

References:

- 1. Dontsov D.V., Ambalov Yu.M., Proydakov M.A., Kovalenko A.P., Usatkin A.V., Levina L.D. Thrombocytopenia in patients with chronic hepatitis C receiving combined antiviral therapy. Clinical manifestations. Features of pathogenesis // Fundamental research. 2014. No. 10. S. 59-63.
- 2. Akhmedova N.Sh., Ergashov B.B., Nuralieva H.O., Safarova G.A. The influence of collected modified risk factors on the development and progression of chronic kidney disease // International Journal of Current Research and Reviews Volume 13 * Issue 02 January 2021 Pages 13-17.
- 3. Ziyoda Rakhmonovna Sohibova, Gulnoz Avazkhonovna Safarova. Modern ideas about the importance of macro- and microelements in the physiology and pathology of the body (review). Journal of Biomedicine and Practice 2020, Volume 6, Issue 5, pp.238-243

http://dx.doi.org/10.26739/2181-9300-2020-6-38

- 4. Mukhamedzhanova M.Kh., Safarova G.A. Assessment of vasorenal hemodynamics in patients with chronic kidney disease in combination with arterial hypertension. Problems of Biology and Medicine 2020, No. 6 (124) 87-90 pages. UDC: 616.1 + 615.2.03 + 613.1 [in Russian]
- 5. Makhmudov Ravshan Barraevich, Safarova Gulnoz Avazkhonovna, (2021). Clinical Cases Of Aplastic Anemia Associated With Hepatitis. American Journal of Medical Sciences and Pharmaceutical Research, 3(04), 195-199. Doi: https://doi.org/10.37547/TAJMSPR/vol. 03 edition 04-28
- 6. Safarova Gulnoz Avazkhonovna, Mukhamedzhanova Mastura Khayatovna, Ubaydova Dilafruz Saddikovna. Features of the vasorenal vascular resistance index indicators in monitoring the progression of chronic kidney disease. Asian Journal of Pharmaceutical and Biological Research 2231-2218

http://www.ajpbr.org/ Universal IMPACT factor 7

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https://doi.org/10.5281/zenodo.6471634

http://www.ajpbr.org / Volume 10. Issue 2. MAY-AUGUST 2021. 10.5281/zenodo.5519192 Pages 78-84

- 7. Safarova G.A. Changes in vasorenal hemodynamics in patients with chronic kidney disease in combination with hypertension. Asian Journal of Pharmaceutical and Biological Research 2231-2218 http://www.ajpbr.org /Volume 10. Issue 2. MAY-AUGUST 2021 10.5281/zenodo.5464135 Page 66-71
- 8. Ismatova M.N., Mukhamedzhanova M.H. Features of anemia in patients with chronic liver diseases. // American Journal of Medical Sciences and Pharmaceutical Research 2021 (April 30) pp.189-194
- 9. Mukhamedjanova Mastura Khayatovna, Jumaeva Madina Fakhriddinovna, Nurova Nigora Sadilloevna. Clinical features of the comorbid state of arterial hypertension and bronchial asthma. Asian Journal of Pharmaceutical and Biological Research 2231-2218. http://www.ajpbr.org/Volume 10. Issue 3. SEPT-DEC 2021. 10.5281/zenodo.5571846
- 10. Makhmudova L.I., Safarova G.A., Mukhamedjanova M.Kh., Sulaimonova G.T. Assesment of changes in the quality of life in patients with irritable bowel syndrome. // Problems of biology and medicine 2021 No. 6 P. 57-61
- 11. Mukhamedjanova M.H. Anemia in patients with interference and interpretation of modern therapy. NDM 4 (36)2021 P150-152
- 12. NS Shadjanova, UK Abdullaeva New opportunities in the treatment of chronic lymphocytic leukemia // Asian journal of pharmaceutical and biological research. 2021 Vol. 10 Iss. 3 P.11-15
- 13. SHAJANOVA Nigora Saidjanovna, EGAMOVA Sitora Kobilovna, UMUROVA Nigora Mavlonovna Metabolism in the organism in elderly persons with iron deficiency anemia // Journal of Biomedicine and Practice. 2020. Vol.2 Iss. 5
- 14. Shadzhanova N.S., Ismatova M.N. prevalence and causing factors of bronchial asthma in the bukhara region // Actual problems of the humanities and natural sciences / 2017. Volume 2 No. 2

http://www.ajpbr.org/ Universal IMPACT factor 7

Volume 11 Issue 1

JAN-APR 2022

https://doi.org/10.5281/zenodo.6471634

- 15. Shadzhanova N.S., Ismatova M.N. Status of kidney function and some indicators of hemostasis in women with mild pre-eclampsia // Actual problems of the humanities and natural sciences 2018. Volume 11 No. 2
- 16. Safarova G.A. Indicators of kidney damage in type II diabetes mellitus in preclinical stages. // Infection, immunity and pharmacology №6/2021 ISSN 2181-5534 Pages 162-167
- 17. Safarova G.A. Features of the clinical course of covid-19 in comorbid conditions (A literature review) // New day in medicine 6 (38) 2021 ISSN 2181-712X. EISSN 2181-2187 pages 88-95
- 18. Mukhamedjanova M.Kh., Safarova G.A. Evaluation of vasorenal hemodynamics in patients with chronic kidney disease in association with arterial hypertension // Problems of biology and medicine 2020, no. 6 (124) P. 87-90. UDC: 616.1+615.2.03+613.1
- 19. Safarova G.A., Mukhamedjanova M.Kh.. The value of Doppler ultrasound in the management of patients with acute kidney injury from various causes. Asian journal of Pharmaceutical and biological research 2231-2218 Vol. 11 Issue 1

JAN-APR 2022 https://doi.org/10.5281/zenodo.6460952