

Extrahepatic Manifestations Of Chronic Viral Hepatitis C (Literature Review)

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Abstract: This article summarizes the material of recent studies of extrahepatic manifestations of chronic viral hepatitis C.

Keywords: chronic viral hepatitis C, extrahepatic manifestations

The highest incidence of chronic viral hepatitis C (CVHC) worldwide, including in developed countries, is noted among people of working age [16]. Insufficient effectiveness of therapeutic measures, high-cost drug provision, progression of pathological changes with an outcome in cirrhosis and liver cancer, as well as the development of extrahepatic lesions of various organs and systems determine the urgency of this problem [13, 45].

Currently, there are more than 70 million patients with CVHC in the world, or 23.7 cases per 100,000 people [52], the expert council of Russia pointed out the presence of 4.5 million patients [13, 27].

In the majority of infected individuals, the hepatitis C virus (HCV) persists for a long time in the body, ensuring the chronicity of the disease [44,50], while the clinical manifestations of this pathology

are not observed for a long time or have poor symptoms. According to C.W.Spearman (2019), only 20% of patients with hepatitis C who applied for treatment knew about their diagnosis [52].

Numerous studies indicate that more than 70% of cases of hepatitis C virus contributes to the development of extrahepatic pathology [21]. It is also noted that extrahepatic manifestations of CVHC are associated with the structural features of the virus [35, 51]. The damage to organs and tissues in chronic hepatitis C is possibly caused by immunological reactions due to the direct effect of the virus on immunocompetent cells [16]. The HCV virus triggers the mechanisms of damage to organs and systems, as a result, the clinical picture of chronic viral hepatitis is often accompanied by pathological manifestations. The study of S.I. Semenov (2017) showed that extrahepatic manifestations of chronic hepatitis C were found in 35% of cases, and the most common were articular syndrome, polyarteritis nodosa and kidney damage [21]. The works of E.N. Usolkina (2018) showed that 45% of patients with CVHC have chronic cholecystopancreatitis, 31% of them have diabetes mellitus, 12% have obesity, 56% have arterial hypertension, 34% have pyelonephritis [25]. The study of Kryukova E.V. et al. (2017) analyzed the extrahepatic manifestations of CVHC over the past 10 years, which occurred in 75% of patients: hematological, autoimmune, dermatological, rheumatological, nephrological and peripheral neuropathies [12].

The presence of concomitant diseases in chronic hepatitis C contributes to the further progression of the disease, especially in metabolic syndrome — clinical deterioration was observed in 59% of patients [30].

M. Ramos-Casals et al. (2017) proposed to divide extrahepatic manifestations into autoimmune, inflammatory, metabolic and neoplastic ones [51].

The studies of M.Yu. Marzhokhova (2019), as well as A.M. Ashura (2019), described cases of the development of psoriasis and dermatosis in CVHC [2,15].

The presence of a chronic viral infection of hepatitis C disrupts the functional activity of the pancreas and digestive glands of the stomach [8].

The study by K.V. Zhdanov (2019) proved that chronic hepatitis C causes a violation of the permeability of the intestinal barrier [7].

Authors working in the field of hepatology indicate that the most common manifestations of extrahepatic lesion in chronic hepatitis C are cryoglobulinemia — 37%, cryoglobulinemic vasculitis — 10%, as well as β -cell non-Hodgkin's lymphoma, Melzer's triad (arthralgia, progressive weakness and cutaneous purpura), autoimmune thyroiditis [6, 32]. It has been proven that CVHC increases the risk of developing chronic kidney disease, including cryoglobulinemic glomerulonephritis [10, 22, 48, 52]. In turn, the presence of glomerulonephritis causes a limitation in the use of drugs in the treatment of CVHC [37]. Cryoglobulinemia aggravates the extrahepatic manifestation of CVHC, such as varicose veins of the esophagus with the development of esophageal bleeding [30].

M.A. Nikonorova (2018) found that HCV can be an independent risk factor for thyroid diseases and a trigger in the development of autoimmune thyroiditis [17].

The studies of T.A. Perepletina (2018) noted that CVHC contributes to the development of hyperplastic processes in the endometrium in women of reproductive age and is often accompanied by sexual dysfunction [19].

The development of hepatic encephalopathy with signs of psychological maladjustment against the background of CVHC has been established [55]. The works of E.V. Radaeva (2018) found that with chronic hepatitis C, more than half of the patients had anxiety-depressive disorders [23]. Also, with chronic hepatitis C, cognitive impairments are observed, caused not only by metabolic changes in the liver, but also by the direct effect of hepatitis viruses on the nervous tissue. In patients with CVHC, increased neurotization and depression are observed, more pronounced in people over 40 years old, especially during treatment with antiviral drugs [20]. Other authors also point to an increased level of depression in patients with CVHC [35, 40, 41].

When assessing the quality of life of patients with chronic hepatitis C according to Russian [1] and foreign [38,39] studies, pronounced negative changes affecting the state of mental health were observed. The study of V.V. Ogarev (2017) showed that with chronic hepatitis C, stigmatization, stress, high levels of anxiety and depression, decreased motivation and compliance are noted [18].

In patients with chronic hepatitis C, pronounced asthenization according to the “Asthenic syndrome scale”, a decrease in the level of Well-being and Activity according to the “SAN” test was proved; according to MMPI, in the structure of personality disorders, astheno-vegetative syndrome prevailed in 56% of individuals, asthenic syndrome —in 34.5% and astheno-depressive syndrome— in 9.5% [3].

The study of the structural and functional state of the heart in patients with CVHC showed that 45% of them had cardiac arrhythmias. It is noted that the progression of liver fibrosis aggravates endothelial dysfunction, microcirculation disorders and vascular-platelet hemostasis [23]. Multidirectional changes in hematological parameters were established during the progression of chronic hepatitis C, the work of Galeeva N.V. and Kravchenko I.E. (2018) showed disorders of platelet and coagulation hemostasis. [4]. The close relationship of the effect of the CVHC virus on the development of vascular atherosclerosis was shown in the study by S. Petta et al. (2018), where, against the background of antiviral therapy, a decrease in carotid atherosclerosis with the elimination of the virus was noted [49].

In patients with CVHC, a high degree of comorbidity is often observed. Thus, in 60% of cases the pathology of the bronchopulmonary system is revealed, in 42% —the pathology of the digestive system, in 31% —the pathology of the cardiovascular system [11].

Also, with chronic hepatitis C, pathological changes on the part of the visual analyzer are observed — lacrimal dysfunction syndrome (corneal-conjunctival xerosis or dry eye syndrome) [28].

The studies of M.K. Mamedov (2019) showed that in patients with chronic hepatitis C, an increased risk of developing oncopathology of various organs and systems was revealed [14].

Cases of the development of inflammatory myopathy in chronic hepatitis C have been described, which did not stop during the course of antiviral therapy with pegylated interferon alpha-2 and ribavirin [6].

A review of the scientific literature on the issues of extrahepatic manifestations of chronic viral hepatitis C indicates the urgency of the problem of early detection of this pathology and the need for its further study in order to develop new medical technologies and improve pathogenetic therapy.

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