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CHRONIC HEPATITIS C IN THE KHOREZM REGION:

AGE- AND GENDER-RELATED EPIDEMIOLOGICAL FEATURES

Yusupov Sh.R.[1],

Umirov S.E.[2,3,4]

[1]Urgench State Medical Institute,

[2]Center for the Development of Professional Qualifications of Medical Personnel,

[3]Alfraganus University,

[4]Republican Center for Combating AIDS, Uzbekistan

Background. Chronic hepatitis C remains one of the leading etiological causes of liver cirrhosis and hepatocellular carcinoma worldwide. According to the World Health Organization, more than 50 million people are chronically infected with HCV, and over 240,000 people die annually from complications of this disease. Despite the widespread introduction of direct-acting antiviral drugs (DAAs), the regional and demographic structure of the infection's spread often remains insufficiently studied. A retrospective assessment of the age and gender distribution of chronic hepatitis C in the Central Asia region, including the Khorezm region of Uzbekistan, will allow for the improvement of early detection strategies and the targeted application of preventive measures.

Keywords: chronic hepatitis C, HCV infection, age stratification, gender distribution, retrospective analysis, epidemiology, Khorezm region.

Objective of the Study. To conduct a comparative assessment of the age and gender distribution of patients with chronic hepatitis C registered in the Khorezm region from 2017 to 2023, as well as the disease detection frequency among different age groups.

Materials and Methods. A retrospective clinical-epidemiological study was conducted involving 221 patients with chronic hepatitis C whose diagnoses were confirmed by HCV RNA detection (PCR method) in the Khorezm region from 2017 to 2023. Among the subjects, 188 (85.1%) had HCV mono-infection, while 33 (14.9%) had a co-infection of chronic hepatitis C and chronic hepatitis B. The patients' ages ranged from 27 to 66 years. For comparative analysis, five age groups were established: 21–29, 30–39, 40–49, 50–59, and 60 years and older. Gender distribution was analyzed separately for the overall group and for each clinical form; place of residence (urban/rural) was considered as an additional variable. The collected data were processed using non-parametric statistical methods, and differences were deemed statistically significant at $p<0.05$.

Results and Discussion. Regarding the gender distribution of patients, men were in the absolute majority: the total group comprised 144 men (65.2%) and 77 women (34.8%). Consequently, the detection rate of chronic hepatitis C was 1.9 times higher in men than in women. This gender imbalance persisted when comparing clinical forms: in HCV mono-infection, men constituted 64.4%

and women 35.6%; in HCV and HBV co-infection, the proportion of men was 69.7% and women was 30.3%. The relatively higher proportion of men with co-infection may be associated with greater exposure to parenteral risk factors.

The age distribution of the patients showed significant unevenness. The highest rate was observed in the 40–49 age group, with 73 patients (33.0%). The 50–59 age group ranked second with 65 patients (29.4%). There were 38 patients (17.2%) in the 30–39 age group, 34 (15.4%) in the 60 and older group, and only 11 (5.0%) in the 21–29 age group. A comparative analysis revealed that the frequency of disease detection in the 40–49 age group was 6.6 times higher than in the 21–29 age group and 1.9 times higher than in the 30–39 age group. This distribution corresponds to the long latent course of HCV infection and the decades it takes to transition to the chronic stage, suggesting that the majority of patients being registered today are the result of infectious contact in previous decades.

The difference between urban and rural populations by place of residence was not statistically significant ($p>0.05$). This indicates that the spread of chronic HCV infection in the region is largely independent of the level of urbanization, and it substantiates the rationale for conducting differentiated disease prevention based primarily on age and gender stratification rather than on geographical factors.

Conclusion. A demographic analysis of patients with chronic hepatitis C registered in the Khorezm region from 2017 to 2023 revealed clear age and gender-specific trends in disease detection. Men were affected almost twice as often as women, with the 40–49 age group representing the peak for disease detection. The data obtained substantiate the need to direct HCV screening and preventive measures primarily toward men aged 40–49, a group requiring special epidemiological attention, and to develop a regional targeted prevention strategy that accounts for age- and gender-related epidemiological characteristics.

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