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FREQUENCY OF TORCH INFECTION AMONG THE DONOR POPULATION IN THE REPUBLICAN CENTER FOR BLOOD TRANSFUSION

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Abstract. The issues of bloodborne infection are one of the important problems of modern transfusiology. According to WHO recommendations, the use of blood from donors who have not been tested for infections is prohibited. Bloodborne infections include infections of the TORCH group (Andre J. Nahmias, 1971): T (Toxorlasmosis - toxoplasmosis), O (Other Diseases - other infections, i.e. chickenpox, ringworm, chlamydia, gonococcal infection, listeriosis, etc.), R (Rubella - rubella), S (Cytomegaly - cytomegalovirus infection - CMVI) and H (Herpes simplex - infections caused by herpes simplex types 1 and 2) occupy an important place.Modern laboratory technologies for diagnosing infectious pathology based on immunochemical research methods make it possible to assess the presence and level of specific antibodies, which makes it possible to predict the course of the infectious process and epidemic, its dynamics, assessment and consequences (Adieva A.A. et al., 2009; Roberts C et al., 2011).

Purpose of the study. Study of the serological prevalence of TORCH infection among the donor population at the Republican Center for Blood Transfusion.

Materials and methods. For this study, blood serum was isolated from 90 donors who voluntarily donated blood from October to November 2022 at the Republican Blood Transfusion Center of the Ministry of Health of the Republic of Uzbekistan. Serum was analyzed for IgG (immunoglobulin G) antibodies against TORCH agents using a commercially available ELISA kit (Manufacturer: OOO NPO Diagnostic Systems, Nizhny Novgorod) according the manufacturer's instruction. Anti-Toxoplasma IgG antibody titers above 0.294 IU/mL were considered positive. Anti-rubella IgG titers above 0.324 IU/mL were considered positive. Anti-CMV IgG antibody titers greater than 0.327 AU/mL were considered positive. Anti-herpes IgG titers over 0.318 IU/mL were considered positive. The results were qualitatively expressed as positive and negative. The 6 control groups were also evaluated to determine if the results were correct. It was found that the sensitivity of the test is 100%, and the specificity is 99.6%.

Results. The analysis consists of 4 test systems and indicates the presence of immunity to the above infections. According to the results of 90 donors, 66 are men and 24 are women. The donors were in the age group from 18 to 60 years. In our study, the overall seropositivity for toxoplasmosis, cytomegalovirus, rubella and herpes was 20 (22.2%), 90 (100%), 88 (97.8%) and 90 (100%) for IgG antibodies, respectively.13 (65%) seropositive donors for toxoplasmosis were men and 7 (35%) women, 66 (73.3%) CMV men and 24 (26.7%) women, 64 (71.1%) rubella men and 24 (26.7%. %) were women, 66 (73.3%) of the herpes simplex virus were men and 24 (26.7%) were women.

Conclusion. Sometimes donating blood can save someone's life. People with herpes can also become donors, but only during remission. After all, when thevirus is active, it can affect the health of the patient who is transfused with donated blood. This is fraught with pathological processes in the brain, liver, and can also cause allergic reactions and diseases of the organs of vision. However, during remission, the virus is not dangerous. During the calm period, the virus is localized in nerve cells, it is not in the blood, so there are no obstacles to donation.