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Results Of Immunological Studies of Patients with Viral Encephalitis with Symptomatic Epilepsy

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Abstract: Viral encephalitis is an acute process in the central nervous system, which in most cases of the disease is recorded in adults with chronic recurrent mixed infection. In parts of the brain, viruses can be a source of replicative relapses of chronic viral neuroinfection with the development of symptomatic epilepsy resistant to antiepileptic therapy.

Keywords: Viral neuroinfection, Viral encephalitis, Central nervous system, Antiepileptic therapy

Aim of the study

To study changes in peripheral blood parameters and parameters of the immune status of patients with viral encephalitis complicated by symptomatic epilepsy.

Materials and research methods

We examined 20 patients with symptomatic epilepsy against the background of viral encephalitis in the clinic of the Andijan Medical Institute for the period from 2015 to 2019. The average age was from 23 to 55 years, men - 10 (50%), women - 10 (50%). All patients were divided into two groups: 1 group: men and women with a diagnosis of viral encephalitis not complicated by symptomatic epilepsy. Group 2: men and women complicated by symptomatic epilepsy. Laboratory studies of the observed patients were carried out in the central research laboratory of the AGMI. The study of the parameters of peripheral blood, indicators of immunological status, serological examination was carried out in patients in a hospital. The general change in the hemogram for the 1st and 2nd observation groups in comparison with the control was an agranulocytic shift in the leukocyte formula: relative lymphocytosis and monocytosis; decrease in the percentage of stab and segmented neutrophils In group 2, there was also a statistically significant decrease in the population of eosinophils in the peripheral blood, both in relation to the indicator of healthy individuals and patients of group 1.

The revealed changes in peripheral blood parameters are characteristic of viral infection and confirm its presence in both groups of patients.

The study of the peripheral blood of patients by ELISA revealed specific antibodies of class G in 100% of patients of both groups: a low IgG titer was more common in uncomplicated course (55.8% of cases), and a high titer (73.3%) - in symptomatic epilepsy.

Conclusions:

Changes in peripheral blood parameters characteristic of viral encephalitis, moderated by symptomatic epilepsy were higher, and the total concentration of the main classes of immunoglobulins was lower than in the uncomplicated course (IgA - 1.12 g / l versus 1.5 g / l; IgG - 10.3 g / L versus 13.8 g / L), which indicates a highly probable functional insufficiency of B-lymphocytes and manifests itself in a decrease in antibody production, which contributes to the slow accumulation of specific antibodies, chronicity of the process, an increase in the viral load and the addition of complications.

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