THE VALUE OF THE ANTI-JC VIRUS INDEX IN PATIENTS WITH MULTIPLE SCLEROSIS IN KAZAKHSTAN

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Introduction. After the recent development of blood anti-JC virus antibody test, stratification of MS patients to various disease modifying therapies entered a new era.
Purpose. To determine the prevalence of antibodies against JCV among patients with MS in the department of MS in Almaty.
Methods. We have conducted a retrospective assessment of the database of patients suffering from MS. Certain factors were examined, such as age, gender, nationality, disease duration, the average score on the EDSS and prior immunotherapy. Connection between seropositivity to anti-JCV-abs and demographic and disease characteristics has been assessed.
Results. Women 76.1% and men 23.9% were examined for presence of antibodies against the JC virus among 71 surveyed patients. Average age was 41.2 ± 11.4 years. Most of patients 77.5% had RRMS, and the average score on the EDSS scale in the examined group was 3.75 ± 1.45. Average prevalence rate of seropositivity to the antibody against the JC virus was 85.9%, of which 73.8% were women. Seropositive result belonging to the European race - 86.9%, Asian race - 13.1%. Seropositivity among men was 3.16 times higher, with tendency to increase with age and was not affected by various immunomodulatory therapies. Curious fact, that among patients who have disease duration less than 5 years, the chances of a JCV positive are 2.18 times higher than those who suffering from long-term MS $p = 0.676$.
Conclusion. Thus, the study confirmed the high prevalence of anti-JCV antibodies among patients with MS and its relationship with the age and gender of men, but there was no correlation with indicators of the extended disability status scale, types of MS, or the applied modifications of the disease. High seroprevalence and an index of antibodies to the JCV can affect the risk assessment and recommendations for the treatment of diseases in this population.