The role of cytokines in the pathogenesis of chronic Epstein — Barr virus infection

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The aim of the study was to determine if there was a correlation between specific antibody response and cellular immune response in the patients with a chronic Epstein — Barr virus (EBV) infection. A total of 345 patients with a chronic EBV infection, aged 39.0 ± 11.7 years were studied. The diagnosis was based on the clinical signs and serological results. Chronic EBV infection was characterized by the IgG antibodies to: capsid antigen (CA), nuclear antigen 1 (EBNA-1), early antigen (EA). Serum IgG antibodies against EBV antigens, IFNα and IFNγ serum levels in vivo and production in vitro were detected with ELISA. Lymphocyte subpopulations were identified by flow cytometry. The patients were divided into four groups depending on IgG antibodies against EBV: 1) VCA and EBNA-1 (n = 245), 2) VCA (n = 25), 3) EBNA-1 (n = 39), 4) VCA, EBNA-1 and EA (n = 36). Statistical analysis of the results showed a correlation between adaptive and innate immune responses to EBV. (Cytokines and Inflammation. 2011. Vol. 10. № 4. P. 96–100.)

Key words: Epstein — Barr virus, chronic infection, virus capsid antigen (VCA), Epstein — Barr nuclear antigen 1 (EBNA-1), early antigen (EA), interferon.