Investigation of serum levels of cytokines in children with manifest and latent herpes virus diseases

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In 238 children perinatally infected with herpes simplex virus I-II (HSV), and/or cytomegalovirus (CMV), changes in serum levels of IL-1α, IL-1β, IL-8, TNFα, IL-1Ra, IL-4, IFNα and IFNγ were studied. The highest contents of IL-1α, IL-1β and IFNγ were observed during latent herpes infections. Patients with generalized herpes infection showed low values of IFNα and IFNγ. In patients with mixed HSV and CMV infections, the peripheral blood levels of IL-1β and IL-1Ra were lower than those of healthy children. In addition, in patients with clinical manifestations of the mixed HSV and CMV infections, the serum IL-8 level was more than 6 times higher than in healthy children, and the IL-4 level was reduced. Thus, serum levels of cytokines reflect the severity of infection, either HSV or CMV etiology, and indicate activation of specific T lymphocyte subpopulations with suppressive functions. (Cytokines and Inflammation. 2014. Vol. 13. № 1. P. 34–36.)

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