

Infections caused by HHV-6 and HHV-7

HHV-6 and HHV-7 belong to the family Herpesviridae. HHV-6 is divided into two subspecies, HHV-6A and HHV-6B. They are enveloped viruses that contain double-stranded DNA. The virion size is 120-150 nm. They replicate in the nucleus and mature in the cytoplasm. They are lymphotropic viruses similar to CMV and persist in the organism for life.

Diagnostics

- Based on clinical signs;
- Serology - IgG and IgM antibodies by immunofluorescence or ELISA;
- cultivation - challenging, on special lymphocyte media;
- PCR - from different tissues, the most sensitive method.

Signs of infection

Primoinfection usually takes place in childhood, often without symptoms. **HHV-6** causes one of the most well-known manifestations of these viruses - a non-serious **febrile state in infants and young children** with either exanthema subitum (sixth disease) or without skin manifestations. Severity increases with the occurrence of **febrile cramps**. Similar symptoms are also caused by **HHV-7**.

Infection is airborne. After an incubation period of 5-12 days, a high temperature **without catarrhal manifestations** lasting about 3 days is typical of the disease. At the time of the temperature drop, a small exanthema develops, which needs to be distinguished from toxoallergic exanthema (after antibiotics, which are often administered).

The more rare clinical manifestations are **encephalitis, hepatitis** and potentially **infectious mononucleosis syndrome**.^[1]

In immunosuppressed (lymphoproliferative diseases, after transplantation...) there is a possibility of reactivation of infection.

HHV-6A is more neurotrophic and can often be detected in patients with CNS disease (sclerosis multiplex).



Treatment

Treatment is symptomatic.

References

Sources

- ŽAMPACHOVÁ, Eva. *Přednášky a materiály dr. Žampachové ke stažení* [online]. [cit. 2012-04-19]. <->.

References

1. Dostál, V. et al.: *Infektologie*. Karolinum, Praha, 2004, str. 247

Použitá literatura

- DOSTÁL, V, et al. *Infektologie*. 1. edition. Praha : Karolinum, 2004. 338 pp. pp. 247. ISBN 80-246-0749-2.
- Human herpesvirus 6