

EPSTEIN-BARR VIRUS (EBV) (INFECTIVE MONONUCLEOSIS)

THE VIRUS

The Epstein-Barr-Virus is a virus of the Herpesviridae family (it includes herpes virus 1 and 2, the varicella-zoster virus and the cytomegalovirus). Once the virus is contracted, it stays for the rest of the life in the organism.

CLINICAL MANIFESTATIONS

Many cases of infectious mononucleosis can be clinically diagnosed by fever, pharyngitis, lymphadenopathy cervical. Symptoms vary from 1 to 4 weeks. It's very typical for a pathology of EBV a general unease characterized by tiredness, anorexia and articular ache. Complications include splenomegaly, hepatitis, pericarditis or involvement of the central nervous system (highlight of the virus in the liquor). Sometimes a maculopapular rash can appear. If it happens, it'll be observed together with a therapy with ampicillin. This virus is even the cause of many lymphomas of B cells of immune-depressed patients. Besides, the EBV is considered as a co-factor in the development of some tumors (Burkitt lymphoma, nasopharynxes carcinoma and Hodgkin lymphoma). In differential diagnosis of mononucleosis (EBV negative) it must be taken into account other infective agents, such as cytomegalovirus, adenovirus and toxoplasma gondii.

EPIDEMIOLOGY

The EBV is transmitted through saliva. It's thought that above 50% of children in pre-scholastic and young age contract the virus, often in a sub-clinical way. Another 40% of the population contract the infection in a scholastic and young age, where the virus cause the classic infectious mononucleosis. About 95% of adults from 35 to 40 years contracted the virus- Once the virus is contracted, it stays in the organism (in throat's and blood's cells) for the rest of the life. Periodically, the virus can re-activate (generally in an asymptomatic way) and it can be present in infected people's saliva.

TEST

The amplification by means of PCR (it has as target the gene EBNA-1) must be considered as a complementary method of the serologic analyses in cases where the highlight of antibodies against different antigens of EBV doesn't allow to formulate a definitive diagnosis in immune-depressed patients (reactivation of the virus). The PCR is moreover ideal for the highlight of the virus in cancer cell tissues.

SAMPLE TAKING

Biopsy, liquor, plasma, blood EDTA

EXECUTION

Daily

COST

According to the federal charge rate of the analyses (3032.00) TP 180

Laboratorio
di diagnostica
molecolare

Further information or bibliographic references can be asked to the laboratory.