EBV 抗体測定
－IP Azyme 法と螢光抗体法との比較－

Measurement of EBV Antibodies Comparison Between Immunoperoxidase Assay and Immunofluorescence Assay

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It is will established that the Epstein-Barr virus (EBV) is a causative agent for infectious mononucleosis and that the EBV is strongly associated with Burkitt lymphoma and nasopharyngeal carcinoma.

For the serological detection and titration of speciffic EBV／VCA antibody in human serum. Immunofluorescence Assay has been most commonly used to detect the antibodies against EBV and its related antibodies.

The following results were obtained by comparison of indirect immunoperoxidase assay (IPA) using the IPAzyme kit and indirect immunofluorescense assay (IFA) for the sensitive and specific determination of EBV and its related antibodies.

1) In the detection of anti-VCA IgG antibodies, the correlation coefficient between IFA and IPA was 0.51. When it is assumed that the error range is plus or minus 1 dilution is the serial dilutions, 41% sera did not show the same antibody titer in both IFA and IPA.

In IPA, 26.3% sera (7 patients with IM, 2patients with enlarged liver and spleen, one patient with chronic EBV infection) showed a higher antibodytiten than in IFAby more than 2 dilutions.

In IFA,14.3% sera (2 patients with leukemia, one patient with hepatitis) showed a higher antibody titer than in IPA by more than 2 dilutions.

2) In the detection of IgM antibodies, 42.7% sera did not show the same antibody titer between IFA and IPA. However, in the case of patients with autoimmune disease, most sera were positive for IgM antibodies in IFA whereas they were negative in IPA. Thus, a great difference was observed, which was due to the non-specific reaction commonly seen in the patients with autoimmune deseases.

3) In the detection of anti-VCA IgA antibodies, 5.9% sera were positive in IFA, whereas in IPA, 22.3% sera were positive. From these results, the present results indicate that IPA is more sensitive than IFA in detecting anti-VCA IgA antibodies, since it is difficult to detect anti-VCA IgM and IgA antibodies in IFA.

More than half of the patients who were positive for anti-VCA IgA antibodies by IPA were the patients with IM, which indicated the first infection of EBV, and the patients with malignant lymphoma with a high anti-VCA antibody titer.

However, IgA antibodies were not detected in any of the patients with carcinoma in the digestive system (gastric carcinoma) with a high anti-VCA antibody titer (VCA:1:640, NA: greater than 1:160) which was caused by the reactivation of EBV.

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