

Prevalence of Cytomegalovirus DNA in the Patients' Serum with HIV using Real-Time PCR

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Abstract : Introduction: HIV is known as one of the most important pathogens and mortality in all human societies, but unfortunately, no definitive cure has been found for it. Due to its weakened immune system, this virus causes a variety of primary and secondary opportunistic infections. Cytomegalovirus (CMV) is one of the most relevant opportunistic viruses seen in HIV-positive people that cause various infections in HIV-positive people. This virus causes various infections in HIV-positive people, such as retinal infection (CMVR), gastrointestinal infections, diarrhea, severe weight loss, and cerebrospinal fluid problems. These various infections make it important to evaluate the prevalence of CMV in HIV-positive people to diagnose it quickly and in a timely manner. This infection in HIV-positive people reduces life expectancy and causes serious harm to patients. However, a simple test in HIV-positive people can prevent the virus from progressing. Material and Methods: In this study, we collected 200 blood samples (including 147 men and 53 women) from HIV-positive individuals and examined the frequency of CMV-DNA in these cases by real-time PCR method. In the next step, the data was analyzed by SPSS software, and then we obtained the relationship between age, sex, and the frequency of CMV in HIV-positive individuals. Results: The total frequency of CMV DNA was about 59%, which is a relatively high prevalence due to the age range of the subjects. The frequency in men was 61.2% and 52.8% in women. This frequency was also higher in males than females. We also observed more frequency in two age groups of 16 to 30 years and 31 to 45 years. Discussion: Due to the high prevalence of CMV in HIV-positive individuals and causing serious problems in this group of people, this study was shown that both the patients and the community should pay more attention to this issue. Ministry of Health, as a stakeholder organization, can make CMV DNA testing mandatory as soon as a person is HIV positive.

Keywords : CMV, HIV, AIDS, real-time PCR, SPSS

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