Quantitative analysis of human herpes virus 6 DNA in patients treated for acute leukemia

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Viruses are important causes of morbidity and mortality for patients with a hematomal malignancy, but the true incidence and consequences of viral infections for these patients who undergo conventional non transplant therapy are inadequately defined. Viral infections in hematological patients may result from reactivation of latent infection or, rarely, from acquisition of a new infection. Thus, screening of patients with hematological malignancies for HHV-6 might be considered mandatory. The aim of this study was to evaluate a possible association between human herpesvirus-6 (HHV-6) infection and acute leukemia in adults after receiving chemotherapy treatment for acute leukemia. The patients were divided into two main groups according to the type of leukemia. All patients with newly diagnosed acute leukemia were subjected to history taking, complete clinical examination and routine laboratory investigations. Peripheral blood samples (whole blood specimens) were collected from all patients for quantitative determination of HHV-6 DNA viral load by Taqman probe technique (real time PCR) at day 0 and day 100 of induction chemotherapy after being extracted on day of sampling. Data were fed to the computer and analyzed using IBM SPSS software package version 20.0. (Armonk, NY: IBM Corp). The results argued against an etiological relationship between HHV-6 infection and the genesis of acute leukemia in adults, however, it supports the hypothesis of viral latency and the possibility of virus reactivation in immune-compromised hosts. The possible presence of HHV-6 as an associated or a putative causative agent in leukemia should however be considered.

Biography

Radwa Hussein Mohamed Ghoraba is a Pharmacist, completed her Graduation from Faculty of Pharmacy and Drug Manufacturing, Pharos University in 2012 in Egypt. She has completed her Master’s degree in Diagnostic and Molecular Microbiology, Medical Research Institute, Alexandria University in 2017 in Egypt. Her involvement in research has given her first-hand exposure to the process of active scientific research, resulted in incredible research experiences, and instilled in her a passion for science and exploration. She is interested in improving public health through research.