

TITLE: SHEDDING OF HUMAN HERPESVIRUS 8 (HHV-8) IN HIV-POSITIVE PREGNANT WOMEN

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ABSTRACT:

Human herpesvirus 8 (HHV-8) is related to neoplasias, such as Kaposi's sarcoma, primary effusion lymphoma, and multicentric Castleman's disease, affecting principally individuals with human immunodeficiency virus (HIV). Studies in vitro indicate negative synergism between HHV-8 and HIV, resulting in increased replication and viral load of both virus. In addition, the gestation may lead the reduction of immunological surveillance in pregnant HHV-8/HIV-infected. This could lead to possible HHV-8 and HIV vertical transmission. However, the prevalence of HHV-8 infection has never been described in HIV positive pregnant in Brazil. Thus, this study aimed to investigate the HHV-8 infection among pregnant from Rio de Janeiro. For this, a retrospective study was realized including 158 serum samples from HIV positive pregnant (test group), and 142 serum samples from pregnant without HIV (control group). All samples were extracted using High Pure Viral Nucleic Acid Kit (Roche Applied Science) and real-time PCR protocol using TaqMan probes and primers for detecting open reading frame (ORF) 26 gene was used. In addition, antibodies against HHV-8 latency-associated nuclear antigen (LANA) and against HHV-8 lytic antigen were determined by immunofluorescence assay (IFA) in serum samples HHV-8 positive using a body cavity-based lymphoma (BCBL)-1 cell line. Eleven samples from HIV positive pregnant and three samples from HIV negative pregnant were amplified with CT (Cycle Threshold) ranging from 14 to 38. After IFA, only one sample from test group was positive for antibodies against HHV-8 lytic antigen, indicating the lytic infection of this virus with the production of virus particles. The results demonstrate the importance of investigate shedding of HHV-8 in HIV-positive pregnant women and of establishing HHV-8 diagnosis to assist in the prognosis and monitoring of neoplasias, such as Kaposi's sarcoma, and clinical management of these women co-infected with this herpesvirus.

Keywords: Human herpesvirus 8, diagnosis, HIV-positive pregnant women

Development Agency: Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro/FAPERJ and Conselho Nacional de Desenvolvimento Científico e Tecnológico/CNPQ