DETECTION OF HUMAN HERPESVIRUSES IN HIV-POSITIVE PATIENTS FROM SOUTHEAST INDIA

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Abstract

\textbf{Background:} Human herpesviruses (HHV) and their associated diseases are common in India, except for Kaposi’s sarcoma and other HHV-8 diseases. Despite the large number of HIV-positive people in India, KS has only been documented a total of 7 times in the literature. We determined the seroprevalence and prevalence of six HHV’s in Southeast India.

\textbf{Methods:} Study cohort consisted of 188 ART naïve HIV-positive patients from Southeast India who visited YRG CARE from 2012-2014. Seroprevalence for past (IgG) and current (IgM) HSV-1, HSV-2, VZV, EBV, and HCMV infections were determined via commercial kits. ELISA for HHV-8 ORF65 and ORF K8.1 were also performed. Prevalence was determined for these HHVs on blood and saliva via in-house rtPCR assays.

\textbf{Results:} Seroprevalence for past and current HSV-1, HSV-2, VZV, EBV, and HCMV infections were 92.55\% and 0.00\%, 68.09\% and 9.57\%, 81.91\% and 3.72\%, 100\% and 5.85\%, and 98.94\% and 13.30\% respectively. HHV-8 seroprevalence was 10.64\% with 20/188 samples positive for both assays. HHV-8 rtPCR was negative in plasma, but was positive for both ORF73 and ORF26 in 7 saliva samples.
Conclusions: This is the first detection of HHV-8 virus in India. Despite the absence of HHV-8 disease the virus is in India at a seroprevalence of 10.64% in the HIV-positive population. Whilst virus is not detected in plasma it can be detected in saliva, which is understandable as the oropharynx is the reservoir for infection and the virus is transmitted via saliva.