Abstract:

Introduction: Human immunodeficiency virus infection is associated with an increased risk of Human Herpes Viruses (HHVs) and related diseases. Majority of HIV infected individuals show no clinical symptoms, but can shed HHVs asymptotically in saliva. Epstein-Barr virus (EBV) is a ubiquitous gamma herpes virus that infects over 90% of the population worldwide and is associated with wide range of malignancies particularly in immunocompromised subjects.

Objectives: The objective of this study were to determine
(i) The effect of ART on the prevalence of EBV in saliva of HIV infected children.
(ii) To evaluate the presence of EBV in HIV infected children with ART and without ART when compared to healthy children.

Materials and Methods: 30 HIV seropositive paediatric patients (Age range < 13 years): 15 on ART, 15 not on ART who were registered at Nireekshana, ACET centre, Hyderabad and 15 non-HIV controls were included for comparing the oral manifestations and EBV load. Unstimulated whole saliva was collected and DNA in saliva samples was extracted and used as a template to detect EBNA1 by Real Time Quantitative PCR.
**Results:** The numbers of EBV DNA load in saliva were found to be significantly higher in HIV infected subjects than non-HIV controls (70% vs 20%). HIV infected subjects who were on ART had significantly lower numbers of EBV than those who were not (60% vs 80%). Significant strong negative correlation was seen between CD4 count and EBV load in without ART group ($r=-0.588; p=0.021$). No significant correlation was observed with the duration of ART (Mean EBV DNA load in long term ART 4.89 vs 3.05 in short term ART)

**Conclusions:** Prevalence of oral EBV was significantly higher in HIV-infected subjects than non-HIV controls. Long term use of ART did not increase oral EBV