Background:-

Epstein Barr virus (EBV), an oncogenic human herpes virus, has been associated with malignant tumours of epithelial cells and B lymphocytes. Active replication in blood has been reported in 32% of Indian children with ALL by real time PCR. Epstein Barr virus is released into saliva from epithelial cells and saliva is known to play an important role in transmission of Epstein Barr virus. This study is designed to detect, quantify and assess the Epstein Barr virus in saliva, supragingival plaque and subgingival plaque of paediatric patients with acute lymphoblastic leukaemia and compare with controls. There are reports where EBV had been detected and quantified in saliva in hematopoietic malignancies other than ALL. There are no reported studies that have detected and quantified EBV in saliva, supragingival plaque and subgingival plaque samples.

Aim: To study the presence of Epstein Barr virus in saliva, supragingival plaque and subgingival plaque of paediatric patients with acute lymphoblastic leukaemia and compare it with controls.

Objective:- To assess the prevalence of Epstein Barr virus in saliva, supragingival plaque and subgingival plaque of paediatric patients with acute lymphoblastic leukaemia using quantitative real time polymerase chain reaction and compare it with controls.

Material and Methods: EBV DNA extraction to be done from unstimulated saliva, supragingival plaque and subgingival plaque samples from healthy paediatric individuals and paediatric patients with acute lymphoblastic leukaemia, as per the protocol of the Indigenous SmartPrepTM Genomic DNA Extraction Kit. The extracted DNA to be subjected to quantitative real time Polymerase Chain Reaction (q-rtPCR) to detect and quantify EBV.

Keywords: Epstein Barr virus, acute lymphoblastic leukaemia, saliva, supragingival plaque subgingival plaque, real time qPCR

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