

MOLECULAR DETECTION OF EBNA3C GENE OF THE EPSTEIN BARR (EBV1/EBV2) FROM THE METROPOLITAN AREA OF BELÉM

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ABSTRACT:

Epstein-Barr virus (EBV) is a member of the family Herpesviridae, subfamily Gammaherpesvirinae, genus Lymphocryptovirus. EBV has a tropism for B lymphocytes and epithelial cells and can coexist in latent and replicative forms. Two types of EBV (types 1 and 2) have been shown to infect humans, but they differ regarding changes in the DNA sequences that encode EBV nuclear antigens (EBNAs). Our study aimed to describe the characteristics of EBV1 and EBV2 and their association with gender, age group and clinical manifestations. Were extracted 85 samples from peripheral blood mononuclear cells and purified for the identification of the type of EBV (1 and 2) by the polymerase chain reaction (PCR) technique. For this, we have used primers targeting at the genomic region EBNA 3C (nucleotides 99.939–100.091). EBV types 1 and 2 produce amplicons of different sizes: 153 bp and 246 bp, respectively. This Project was approved by the Human Research Ethics Committee of CEP / IEC / SVS) according tounder CAE number no. 65332717.2.0000.0019 with Opinion no. 2.098.453. Results: Analyzed by PCR, 55,3% (47/85) were females and 44,7% (38 /85) were males. The distribution of positive results by age group were the following: 0-10 (28.2%, 24/85), 11-20 (24.7%, 21/85), 21-30 (17.7%, 15/85), 31-40 (12.9%, 11/85), 41-50 (4.7%, 4/85) and >50 years (11.8%, 10/85). Of the analyzed cases EBV1 infections represented were found in 61.2% (52/85), followed by EBV-2 in 8.2% (7/85) and co-infection EBV1/2 in at 9.4% (8/85) of cases. With regards to the clinical findings, 68.7% of cases presented with fever, 56.2% with cervical lymphadenopathy, 37.5% with headache, and 18.7% with exanthema. Conclusion: EBV1 was predominant in 60% of clinical cases of infectious mononucleosis (IgM EBVCA+) from in the metropolitan area of Belém.

Keywords: EBNA3C.gene; EBV1, EBV2.

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