Abstract

Polymerase chain reaction study of Epstein-Barr virus in high risk group of nasopharyngeal carcinoma: a preliminary report.

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The incidence of nasopharyngeal carcinoma (NPC) is relatively high in Thailand. Early diagnosis which leads to early treatment is crucial, in order to obtain a high salvage rate. Epstein-Barr virus (EBV) has long been known to be associated with nasopharyngeal carcinoma. Polymerase chain reaction (PCR) is a sensitive and specific technique for the detection of EBV genome in NPC. The first generation of members in the families of NPC patients is considered a high risk group. This study utilized the PCR technique as a screening test for early detection of EBV DNA in this group and also attempted to compare the result with that of IgA antibody level. The data was collected from July 1995 to 1996, this included 35 high risk volunteers, 15 males and 20 females. All subjects underwent telescopic examination and biopsies were performed to obtain specimens for PCR. Blood samples were also taken to determine serum titer of EBV IgA. All specimens studied were negative for EBV DNA and low IgA antibody titer obtained. The negative results implied that either the sample studied was inadequate to detect the low percentage of positivity of EBV in a high risk population or prolonged infection of EBV in nasopharyngeal mucosal cells is not necessary for initiation of NPC.