Detection of Mumps virus of Genotype G in Bangladeshi children suffering from Encephalitis

ABSTRACT

Although mumps virus (MuVi) is an important agent of encephalitis, however, mumps vaccine has not yet been included in the national immunization programme of Bangladesh. Furthermore, the genotype distribution of this virus in Bangladesh is unknown. Cerebrospinal fluid samples collected from 97 children with encephalitis from April 2009 to March 2010 were subjected to polymerase chain reaction (PCR) test to determine the causative agents. MuVi was detected in two samples, these samples were further subjected to conventional PCR using specific primers, then amplicons were sequenced, and genotype was determined as genotype G. Phylogenetic analysis showed that these strains were clustered with strains from Nepal, India, the UK, Thailand, and the USA. By Bayesian inference, we also determined that the ancestor of Bangladeshi and Indian MuVi were same and segregated only about two decades back. These results will help future surveillance and the detection of invading MuVi strains from other countries.