研究業績 英文表記

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Title	Rotavirus Disease Burden and Molecular Epidemiology in Children with Acute Diarrhoea Age Less than 5 Years in Nepal
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Introduction: Rotavirus is the most common cause of severe gastroenteritis in infants and young children worldwide. The aim of the study was to determine rotavirus disease burden and distribution of rotavirus genotypes in children less than five years of age.

Methodology: Stool samples were collected from 1768 hospital admitted children under 5 years of age with acute watery diarrhea during November 2005 to October 2008. Rotavirus in stool samples was detected by Enzyme Immuno Assay (EIA) and positive specimens for rotavirus positive was genotyped by reverse transcription-polymerase chain reaction (RTPCR) and sequencing methods.

Abstract

Results: The prevalence of rotavirus was 36.59% (647/1768). Detection was higher in male (33.3%) than female (26.9%). The prevalence was higher during the month of January (2005-06) and February in other periods. During 2005-06, high prevalence of rotavirus was noted in children of age between 6-11 months while in 2006-07 and 2007-08 high prevalence was seen in age group 12-23 months. The most common genotyping of rotavirus identified 5 G types and 3 P types. Genotypes G12 and P [8] were most common during both periods studied (G12; 50%, 29% 33.7% in 2005-06, 2006-07 and 2007-08 respectively and P[8]; 47%, 35% and 43.5% in 2005-06, 2006-07 and 2007-08 respectively). Among six combined genotypes, G12P [6] was most prevalent (34%, 24% and 47.5% in 2005-06, 2006-07 and 2007-08 respectively) where as G1P [6] (4%) was seen in year 2007- 08 only.

Conclusions: The study demonstrates the burden of rotavirus diarrhea in Nepal. The data on rotavirus genotypes will help inform decisions as to whether rotavirus vaccine should be considered for inclusion in to Nepal's National Immunization Program.

keyword

Rotavirus; Diarrhea; Genotyping; Children

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