研究業績　英文表記

和文	
表題	
著者名	
所属	
英文	
Title	Molecular Epidemiology of Rotavirus Diarrhea among Children and Adults in Nepal: Detection of G12 Strains with P[6] or P[8] and a G11P[25] Strain
Author	Ryuichi Uchida,1† Basu Dev Pandey,2 Jeevan Bahadur Sherchand,3 Kamurddin Ahmed,1 Michiyo Yokoo,1‡ Toyoko Nakagomi,1,4 Luis E. Cuevas,5 Nigel A. Cunliffe,4 C. A. Hart,4 and Osamu Nakagomi1,4*
Affiliation	Division of Molecular Epidemiology, Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Japan1; Sukra Raj Tropical and Infectious Disease Hospital, Kathmandu, Nepal2; Department of Microbiology, Infectious and Tropical Disease Research and Prevention Center, Kathmandu, Nepal3; Department of Medical Microbiology and Genitourinary Medicine, University of Liverpool, Liverpool, United Kingdom4; and Liverpool School of Tropical Medicine, Liverpool, United Kingdom5

Abstract	In anticipation of a rotavirus vaccine in Nepal, this study was undertaken to determine the distribution of the G and P serotypes and electropherotypes of rotaviruses in order to examine if there is any emerging serotype or unusual strain circulating in children and adults in Nepal. Of 1,315 diarrheal stool specimens, rotavirus was detected by an enzyme-linked immunosorbent assay in 116 (17%) of 666 patients less than 5 years of age, in 18 (7%) of 260 patients 5 to 14 years of age, and in 19 (5%) of 358 patients 15 years of age and older. Approximately 75% of rotavirus diarrhea occurred in children less than 5 years of age. Approximately 70% of rotaviruses found in each of the three age groups belonged to serotype G1P[8]. Interestingly, there were 29 (20%) G12 rotaviruses carrying either P[8] or P[6] and one (0.7%) G11 rotavirus carrying an unusual P[25] genotype. RNA polyacrylamide gel electrophoresis discriminated 19 strains (electropherotypes), among which there were three codominant strains carrying G1P[8] and long RNA patterns. Five electropherotypes were discriminated among G12 rotaviruses, all of which had long RNA patterns. The fact that 20% of rotaviruses were G12 strains carrying either P[8] or P[6] and had multiple electropherotypes suggest that G12 strains are not more rare strains but that they pose an emerging challenge to current and future vaccines. The presence of multiple strains as defined by electropherotypes suggests the richness of the rotavirus gene pool in Nepal, where unusual strains may continue to emerge.
keyword	rotavirus, strain, electropherotype, genotype, molecular epidemiology

※本データの英文表記は実際の論文上の表記とは異なります。