

Rotavirus infections among HIV-infected children in Nairobi, Kenya

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Abstract:

Human rotaviruses have emerged as a leading cause of acute diarrhea in children <5 years of age worldwide. Although there are previous reports relating to various aspects of rotaviruses, there is limited data on the involvement of rotavirus infection in HIV-infected children. We therefore evaluated the importance of rotavirus infections in HIV-related diarrhea in Kenyan children. Fecal samples were collected from a total of 207 children during the period February 1999 to June 2000 and screened for HRV antigen by enzyme-linked immunosorbent assay (ELISA). Positive samples were analyzed by VP6 subgroup specificity assay, by polyacrylamide gel electrophoresis (PAGE) and reverse transcriptase/polymerase chain reaction (RT-PCR). Fourteen percent (29/207) of the samples were positive. HIV-seropositive children with diarrhea were more likely than their counterparts without diarrhea to have rotaviruses [23.3% (10/43) versus 2.9% (2/70); $p = 0.0001$]. Rotavirus strain G3P[6] was predominant. These results indicate that rotavirus is an important viral etiological agent causing diarrhea in HIV-seropositive children