

Epidemiology and Molecular Identification of Rotavirus Strains Associated with Gastroenteritis in Children in Niger State

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Abstract

The study was conducted to determine the genetic diversity of the rotaviruses associated with gastroenteritis in children in Niger State. A total of 150 stool samples were collected from diarrheic children (0 – 5 yrs) in four hospitals (Minna, Bida, Suleja and Kontagora) in Niger State. The stool samples were screened for rotavirus, using Enzyme linked Immunosorbent assay (ELISA). Eight stool samples were positive (5.33%). The prevalence of the disease according to sex of the children was as follows; male (4%) and female (1.33%). The prevalence of gastroenteritis according to water source was distributed as follows; pipe borne (2%), bore hole (1.33%), and river/stream (2%). The prevalence of rotavirus gastroenteritis among children according to the breast feeding was as follows; exclusively breastfed children had (2%) and those breastfed only recorded (3.33%). Molecular identification of the virus revealed the presence of the following genotypes: P6 (22%), G1 (22%), G2 (33%), and G8 (22%) in the study area.

Keywords: Molecular characteristics, rotavirus strains, gastroenteritis, children, prevalence, genotypes.

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