

Epidemiology of Rotavirus Diarrhea in Children under 5 years in Northern Cameroon

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Background

Rotavirus still remains the major cause of diarrhea in children below 5 years. No data on rotavirus epidemiology is available in the Northern regions of Cameroon. We aimed to determine the prevalence of group A rotavirus (RVA) in children below 5 years with diarrhea in two regions of Northern Cameroon (North West and Far North Regions) so as to improve our knowledge on the burden of rotavirus disease for imminent introduction of a rotavirus vaccine.

Methods

Stool samples were collected during 2010 and 2011 from 390 children below 5 years presenting with diarrhea in four hospitals in Northern Cameroon and were screened for rotavirus group A by reverse transcription-polymerase chain reaction.

Results

This study revealed that 42.8% of the children below 5 years had group A rotavirus infection, 46.5% in the Far North region while the North West had a prevalence of 33.9%. Of the 252 hospitalized and the 138 outpatient children, 124(49.2%) and 43(31.2%) ($P=0.00085$), respectively, were positive for group A rotavirus. Children below 24 months were most affected (44.7%), while the age group 49-60 months had the lowest prevalence (25%). The RVA prevalence was 44.6% in the urban and 28.9% in the rural settings of our study. It was observed that the proportion of children with diarrhea who had rotavirus accompanied with fever and vomiting in the outpatient group and inpatient