

Prevalence of rotavirus among children seen at Chukwuemeka Odumegwu Ojukwu University Teaching Hospital (COOUTH) Awka Anambra State Nigeria

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Introduction

Rotavirus is the most common cause of severe gastroenteritis and dehydration in young children in both industrialized and developing countries. The anticipated introduction of rotavirus vaccine into Nigeria's national immunization program highlights the need for broader baseline data on the disease burden.

Methods

A prospective study was conducted from January 2018 to February 2019 in children younger than five years hospitalized for acute gastroenteritis in Chukwuemeka Odumegwu Ojukwu University Teaching Hospital Awka Anambra State based on the World Health Organization's generic protocol. The 10% fecal suspensions were made and screened for the presence of group A antigen at the Virology Department, University of Nigeria Teaching Hospital Ituku Ozalla Enugu, using a commercially available enzyme immunoassay (EIA; ProSpecT rotavirus kit, Oxoid Ltd, Basingstoke, UK). The test was performed according to the manufacturer's instructions.

Results:

Ninety (90) children with acute gastroenteritis were enrolled during January 2018 to February 2019; of these, 50 (55.6%) tested positive for rotavirus. Among those that were rotavirus positive, 38.0% and 28.0% were 6 to 11 months and 12 to 23 months respectively and 88.0% of all positive samples were children younger than 2 years. January was noted as the peak for rotavirus infection. More males than females were positive but the difference was not significant ($p= 0.832$). Vomiting ($P = 0.007$) was more common in children with rotavirus than non-rotavirus gastroenteritis.

Conclusion:

This study found high prevalence of rotavirus- associated diarrhea disease in Anambra State Nigeria and infants were the most affected. This highlights the urgent need for introduction of rotavirus vaccine into the national immunization program in Nigeria.