

Predominance of G12P[6] rotavirus strains among Rotarix vaccinated children in Cameroon

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Introduction

A monovalent rotavirus vaccine (Rotarix) was introduced in the Cameroonian Expanded Program on Immunization from April 2014. We investigated the genotypic characteristics of rotavirus A strains among vaccinated under 5 years children who presented with acute gastroenteritis.

Methods

Sentinel surveillance for diarrhea among children <5 years of age is being conducted at 4 hospitals in Yaoundé, Cameroon since 2007. Stool specimens were collected from enrolled children post Rotarix introduction (2015-2018) at the Sentinel site and tested using an antigen capture enzyme immunoassay. Rotavirus positive samples among vaccinated infants were further characterized by rotavirus genotyping methods to identify the predominant G and P types circulating during the post vaccine era.

Results

A total of 2220 children with diarrhea were enrolled during the post-vaccination (2015-2018) periods among which 1026 were vaccinated. More than 55% (570/1026) of the vaccinated children with diarrhea were in 2017. Among these vaccinated children, 195 (19%) were positive for rotavirus A with the highest prevalence in 2016 (24%). The most prevalent circulating strains were G12P[6] in (21%), G2P[4] (13.8%), G3P[6] (8.2%) and G1P[8] (4.6%).

Conclusion

A significant number of children vaccinated against rotavirus still present with acute gastroenteritis. A wide variety of rotavirus strains still circulate and there have probably strain replacement where G1P[8] cases have decreased significantly during the post vaccine era in Cameroon.