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Abstract (poster session)

**Predominance of G2P[4] among adults with rotavirus gastroenteritis in Brazil, 2004-2011: potential impact on vaccination?**

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**Objectives.** Rotavirus (RV) is the most common cause of acute viral gastroenteritis in children worldwide; however its role in the adult population is less well understood. In addition, in 2006 a G1P[8] vaccine was included in the Brazilian National Immunization Program, and a high prevalence of G2P[4] detected in children was linked with this vaccination. The aim of this work was to monitor RV infections in adults  $\geq 18$  years old with acute gastroenteritis during 2004-2011 national Brazilian RV surveillance. In addition, characterized the RV group A (RVA) strains (G- and P-type) circulating in the adult community during this study period in order to gain insight into the supposed vaccine selective pressure imposed to Brazilian children population. **Methods.** A total of 2102 convenient faecal specimens were investigated by ELISA, PAGE, and RT-PCR. **Results.** RV was detected in 203 (9.6%) of 2102 specimens collected from adults. RVA infection was detected in 9.4% of the samples (197/2102) and RV group C (RVC) in 0.3% (6/2102). The most frequent genotypes detected in 2004 and 2005 were G9P[8] (38.5%; 5/13) and G1P[8] (54.5%; 6/11), respectively. The dominant genotype identified from 2006 to 2011 was G2P[4] (64.5%; 116/180). Detection rate varied during the 8-year period of the study from 0.7% to 12.9%. **Conclusion.** This study does not suggest that RV have currently a major epidemiological impact in adult population. However, the high detection rate of G2P[4] in adults provides further evidence that its predominance reflect the seasonality of RVA strains instead the supposed selective advantage created by the monovalent G1P[8] vaccination program. It can be suggested that adult infections may serve as a reservoir to maintain RVA strains in childhood gastroenteritis. Considering the detection rate, the evidently reduction of RVA frequency observed in children after vaccine introduction was not presented in adults.