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Genotyping of G/P No Typable Group a Rotavirus Strains Revealed G2 and G9 Genotype Circulations in Moroccan Children Fully Vaccinated with Rotarix™

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Abstract : Three Moroccan children fully vaccinated with Rotarix™ have been hospitalized for Rotavirus Gastroenteritis (RVGE) in the pediatric division of the Farabi Hospital, Oujda. Rotavirus G/P genotypes could not be typed because of their delayed crossing threshold (Ct) resolute with a group A rotavirus (RVA) real time RT-PCR. These strains were adapted to cell culture. All viruses replicated and caused extensive cytopathic effects after four or five passages in MA104 cell lines. Significant improvements have been obtained in the amount of viral particles. Each virus multiplied to a high titer (7.5 TCID50/ml). VP7 and VP4 partial gene sequencing revealed distinct genotypes compared to the Rotarix(®) vaccine strain. Two strains were of G2P[4] genotype whereas the third was G9P[8] genotype. Virus isolation while labor intensive, is recommended as a second test, especially when higher sensitivity for conventional RVA genotyping RT-PCR is needed. VP7 antigenic similarities between these strains and Rotarix were determined.

Keywords : esacpe-vaccine, Morocco, Rotarix, G2P[4], G9P[8]
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