

MOLECULAR DETECTION IN PEDIATRIC PATIENTS DIARRHEA SAMPLES BY POLYMERASE CHAIN REACTION VP6 ROTAVIRUS AMPLIFICATION

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Acute diarrhea is the major cause of morbimortality in children. The disease is a public health problem worldwide, thus, the most common agent is rotavirus. Rotavirus which are classified as a genus in the Reoviridae family, belongs to the genus Rotavirus, can be classified in serotypes, subtypes and genotypes. As group A, B and C rotaviruses are the most common cause of gastroenteritis in young children. The genome consists of 11 double-stranded RNA, which encodes six structural and six nonstructural protein. This etiologic agent infects gastrointestinal tract and infected individuals are potential infection transmission. The detection of this illness is important to establish alternatives to control and eradication. In order to detect rotavirus in diarrhea samples, we used Polymerase Chain Reaction to VP6 protein gene amplification. We tested 8 acute diarrhea samples from pediatric patients from Hospital de Clínicas de Porto Alegre, Rio Grande do Sul, Brazil. First, the samples were diluted in Eagles's Minimum Essential Medium (E-MEM). After viral extraction, the dsRNA were used for reverse transcriptase to synthesize cDNA from all genome. In order to detect rotavirus, we used pan-reactive RT-PCR for vp6 virus protein detection. As PCR product 100pb, it was checked in agarose gel 1%. The analysis revealed two samples positive for rotavirus. The viral RNA presence in children diarrhea samples remains the importance to implement sensible tests to detect agents involved in enteritis. We intend to continue the study to evaluate prevalence of viruses infections, testing others enteric viruses as well.