

Epidemiological features of rotaviral, bacterial, and parasitic infections among hospitalized children in Jahrom (2006-2007)

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*Abstract

Background: Rotavirus is one of the most common cause of diarrhea and one of the major causes of sever gastroenteritis in very young children.

Objective: To follow up and genotype the agents of rotavirus infection as well as assessing the bacterial and parasitic organisms among hospitalized children with gastroenteritis in the city of Jahrom, Iran.

Methods: This cross-sectional descriptive study was carried out during October 2006 to October 2007. A total of 163 stool samples from hospitalized children less than 5 years old with severe diarrhea were collected from two hospitals in Jahrom. Culture, microscopy, EIA, and RT-PCR were used for detection of bacterial, parasitic and rotaviral agents. Data were analyzed using SPSS 14 and descriptive statistics including chi-square test, ANOVA, and Fisher exact test. A p value less than 0.05 was considered to be statistically significant.

Findings: Of total samples, 46.02% were positive for group A rotavirus by EIA. The predominant genotypes were G₁ (17.33%), G₄ (30.66%), and nontypable (30.66%). Also, E.coli, Shigella spp., Shigella spp. + E.coli, E.coli + rotavirus, Salmonella spp., E. histolytica/E.Dispar, and other infectious agents were identified in 7.97% , 17.18% , 1.83% , 15.20% , 3.66% , 10.84% , and 6.28% of cases, respectively.

Conclusion: According to the data obtained from the present study, rotavirus infections in Jahrom mostly occur within the cold months of the year, epidemiologically.

Keywords: Gastroenteritis, Rotavirus, Genotyping, Bacteria, Parasite, Infant

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