

## Prevalence of rota, adeno and astrovirus in children with acute gastroenteritis in Babol, Iran

Yousef Yahyapour (MSc) \*<sup>1</sup>, Rahim Savadkoobi (MD)<sup>2</sup>, Karim-allah Hajian (PhD)<sup>3</sup>  
Somayyeh Jalilvand (MSc)<sup>4</sup>, Rasool Hamkar (PhD)<sup>5</sup>

<sup>1</sup> Student of PhD and Academic Instructor, Department of Virology, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran. <sup>2</sup> Assistant Professor, Department of Pediatrics, Faculty of Medicine, Babol University of Medical Sciences, Babol, Iran. <sup>3</sup> Professor, Department of Social Medicine, Faculty of Medicine, Babol University of Medical Sciences, Babol, Iran. <sup>4</sup> Student of PhD, Department of Virology, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran. <sup>5</sup> Assistant Professor, Department of Virology, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran.

---

### Abstract

**Background & Objective:** Viral gastroenteritis is associated with significant cause of morbidity and is a common cause of hospitalization in worldwide. This study was performed to assess the role of rota, adeno and astroviruses in children presenting with acute diarrhea in the main Children's Medical Hospital in Babol-Iran.

**Materials & Methods:** Stool specimens from 208 children suffering from diarrhea were tested for the presence of rota, adeno and astroviruses by ELISA test during Winter 2004 to Autumn 2005. Data were then analyzed by the Chi-square and Fisher exact test with SPSS-10 software.

**Results:** Rota, adeno and astrovirus antigens were detected in 61.1%, 2.9% and 2.4% of patients. Infants between 6 and 12 months of age were most frequently affected with rotavirus (29.8%), ( $p < 0.05$ ). Rotavirus infection was significantly less frequent in summer and spring than winter and autumn ( $p < 0.05$ ). Fever and vomiting were present in 55.1% and 51.7% of children, respectively. There was not significant correlation between rotavirus infection and gender of patients.

**Conclusion:** This study showed that rotavirus can be regarded as a major etiologic agent of winter acute diarrhea in children under 2-years old in Babol. Therefore, it is suggested to provide proper vaccination to immunize the children.

**Key Words:** Rotavirus, Gastroenteritis, Adenovirus, Astrovirus

---

\* Corresponding Author: Yousef Yahyapour (MSc), E-mail : yahyapour@sina.tums.ac.ir