

Prevalence of Enteric Viruses in Children Hospitalized with Acute Gastroenteritis in Northern Jordan. Annals of Pediatrics & Child Health

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Abstract: Objectives: To detect the prevalence of enteric viruses and to investigate the association between the infection and the clinical data collected from patients. Methods: Fecal samples collected between September 2019 and August 2020 from 239 Jordanian children aged less than 15 years hospitalized with acute gastroenteritis (AGE), were screened for enteric viruses by polymerase chain reaction (PCR) and reverse transcriptase- polymerase chain reaction (RT-PCR). Results: A total of 34 out of 239 (14.2%) fecal samples resulted positive for at least one enteric viruses. Viruses detected were rotavirus A (11, 4.6%), astrovirus (9, 3.8%), norovirus (5, 2.1%), adenovirus 40, adenovirus 41, , and human bocavirus, each with 3(1.3%) positive samples. Aichivirus, sapovirus, klassevirus, and salivirus A were not detected in any sample. A statistically significant association ($P < 0.05$) was observed between female gender and astrovirus (17.6% females vs. 8.8% males). There was no significant association between gender and other viruses. The group having the highest infection rate was 0-1-year-old patients (8.4%) followed by 2-4 years (4.2%). Most viral cases were detected in the winter (38.5%) followed by autumn (35.5%) without recording cases in the spring. Significant associations were seen between the presence of rotavirus and dehydration ($P = 0.00001$) and vomiting ($P = 0.004$), and between norovirus and weakness ($P = 0.047$). The average duration of symptoms was 2-3 days in 25% of the cases. Among the infected patients, 25% were under antibiotic treatment. Conclusion: Detecting enteric viruses in patients with AGE will aid in the effective care of patients and the development of viral gastroenteritis control measures in the country