Seasonal Prevalence of Acute Gastroenteritis, Enteric Adenovirus and Rotavirus Antigen: Immunochromatographic Presence in Children

Dear Editor,

Diarrhea in children is the most common viral cause. Rotavirus is responsible for the significant part of viral-originated diarrhea. Infection is mainly transmitted through fecal route and children under two years of age are affected more. Majority part of children under two years of age are treated on impatient basis (1). We read the article with interest titled “Seasonal Prevalence of Acute Gastroenteritis, Enteric Adenovirus and Rotavirus Antigen: Immunochromatographic Presence in Children” by Sugeçti et al. (2) regarding the rotavirus gastroenteritis which constitutes the significant part of patient load in hospitals, especially pediatric emergency services.

The use of a test with sensitivity and specificity for the detection of antibodies in their study increased the reliability of the results of the internal quality control test kit by using a rotavirus and enteric adenovirus antigens positive control antibodies on each test. We would like to thank the authors for explicating in detail the working method of the test in the method and materials section.

It is commonly known that rotavirus infections in mild climate are more frequently seen in winter months. In underdeveloped countries with a tropical climate, on the other hand, although they are somewhat on the increase in the winter months, they may be seen throughout the whole year. In a comprehensive study in Turkey where the data of 35 hospitals were evaluated, it was revealed that rotavirus gastroenteritis was seen all year long, but frequency of the cases increased in January and May. It was found in the same study that the number of cases in summer months were lower (3). Frequency of rotavirus-originated diarrhea may change according to regional and seasonal characteristics. Sugeçti et al. stated in their study that rotavirus antibody positive cases were most frequent in the spring months. This result is consistent with the results of two studies done in the Black Sea coastal provinces (4, 5). In Sugeçti et al.’s study, the frequency of cases (17.24%) with positive rotavirus antibody was noticeable in summer months (27.43%) especially in August. These results seem to be inconsistent with the single-center and multicenter studies done in our country (1, 3-5). Can this specific result be explained by the relative increase in the abundance of diarrhea cases in summer months? In the results part of the study, no information was available regarding the rate of rotavirus antibody positivity in the stool samples especially in summer months. Furthermore, in the discussion part, it was seen that no interpretation has been made regarding the specific abundance of the rotavirus antibody positivity frequency in August. We are curious to know the interpretations of the authors regarding this particular result.

Sinan Oğuz, MD
Nilden Tuygun, MD
Clinic of Pediatric Emergency, Ankara
Dr. Sami Ulus Maternity, Pediatric Diseases Training and Research Hospital, Ankara, Turkey
E-mail: sinoguz@yahoo.com
DOI: 10.5152/ced.2015.16

References
Dear Editor,

We would like to thank you the interest of Dr. Sinan Oğuz and Dr. Nilden Tuygun in our study and your invaluable contributions.

Viral antibody (19.6%) was found in the stool of 638 out of the total of 3258 patients. It was found that rotavirus was positive in 590 (18.1%) and enteric adenovirus in 48 (1.5%) of these cases (1). Positive monthly and seasonal the number (n) and percentage (%) values of enteric infections are highlighted.

Many ways (fecal-oral, aerosol, etc.) of transmission of enteric diseases (2, 3), it is thought that the cause of their abundance in the region in the August may be associated with seasonal parameters. Specifying the source of rotavirus and taking the necessary measures against the ways of transmission proves to be significant. As a result of the availability of coastline appropriate for swimming and increased heat and humidity levels in the region in the summer months, people have greater chance of having contact with the sea in August. Parallel to this, it was thought that the level of marine pollution (the granting of waste water to the sea, etc.) changes might have triggered rotavirus infections.

In our study, the frequency (17.24%) of cases with rotavirus antibody positivity in the summer months (27.43%), especially in August was established (1). These results make us think that the ways of transmission of rotavirus positivity may be different. The facts that seasonal parameters might be related with enteric infections were reported in many studies such as Çelik et al. and Barril et al. studies (4, 5). It is thought that the necessity of considering many parameters in a complex way in specifying the source of many enteric infections will be beneficial in the prevention of these infections.

In conclusion, specifying sources of contamination and taking the necessary measures can enable protection against the enteric infections most common in childhood.

Serkan Sugeçti, MD
Ferudun Koçer, MD
Department of Biology, Bülent Ecevit University
Institute of Science, Zonguldak, Turkey
E-posta: serkan.sugecti@hotmail.com

References

The Role of Acyclovir in the Treatment of Herpes zoster Virus Infections in Immunocompromised Children

Dear Editor,

Varicella is usually a common infection in children that may have severe course in patients with immune deficiency and in adults and can cause serious complications. Although it is a self-limiting disease in individuals with strong immunity, in healthy children, complications such as secondary bacterial infections, septic arthritis, osteomyelitis, pneumonia, hepatitis, acute cerebellar ataxia, encephalitis, meningitis, and bleeding may occur (1). Especially in patients who have malignant disease with suppressed immunity, viremia and life-threatening risk of viral spread are high (2). Due to the effects of chemotherapy agents used in patients with high hematologic malignity and for the malignity itself, cellular immunity is weakened. Therefore, patients with hematologic malignity are risky patients in terms of viral infections and of the development of complications (1). For this reason, I am of the opinion that article titled ‘The Role of Acyclovir in Treatment of Herpes Zoster Virus Infections in Immunocompromised Children’ by Öcal Demir et al. (3)’s is a beneficial study.

Given the complications that developed following varicella complications in 64 healthy children in a study carried out between 2006 and 2010 by Külcü et al. (4), it was reported that the patients were hospitalized most frequently due to respiratory system involvement (pneumonia, bronchiolitis, parapneumonic effusion) 41.3%, bacterial skin infection 17.4%, neurological complications 15.9% (cerebellar ataxia, febrile convulsion, meningoen cephalitis). It was also reported that the patients recovered with acyclovir and antibiotic treatments.

In their study in which Çelik et al. (5) investigated 72 patients with malignity, it was found that 70% of the patients in the study developed Varicella Zoster infection-associated varicella and 30% herpes zoster. It was seen that 47% of the patients had hematologic malignity (12%