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Presence of Rotavirus and Adenovirus Antigens in Children with Gastroenteritis Who Attended the Tekirdağ State Hospital

Dear Editor,

I read the study titled "Researching the Presence of Rotavirus and Adenovirus in Children Presenting with Gastroenteritis at Tekirdağ State Hospital " by Gülen et al. (1) published in the July 2013 edition of the Journal of Pediatric Infection (Çocuk Enfeksiyon Dergisi) with great interest (1). Gülen et al. (1) investigated the frequency of rotavirus and adenovirus-driven gastroenteritis cases in the Tekirdağ region and that developed based on and emphasized that the viral agents had a significant role in the etiology of acute gastroenteritis. In their study in which 2135 patients presented to their hospital with complaints of diarrhea between the dates of January 2010 and December of 2011, they investigated their stool samples with regards to Group A rotavirus and the presence of Adenovirus serotype 40-41, and found rotavirus in 10.4 %, adenovirus in 3.65% of the patients and rotavirus and adenovirus positivity in five patients.

There are many national and international studies from various on the epidemiology, clinics, accompanying diseases and complications of gastroenteritis. There are great differences in the specifications of those studies such as patients' age range, season of the study and the method used to detect the rotavirus. In this sense, Gülen et al.'s (1) is a valuable one since it is a study with the largest number of samples in the Tekirdağ region. In an article published by the Directorate of Refik Saydam Health Centre in 2010, a total of 147 stool samples from 11 different provinces were investigated in 2009 in terms of norovirus Genotype I, norovirus Genotype II, rotavirus, adenovirus and astrovirus, it was found that 44.4% samples were at least one viral agent-positive and 6.8% samples more than one viral agent-positive. (2). Of the viral gastroenteritis agents examined throughout the period of one year, norovirus (especially genotype II, 57%) turned out to be the most frequently detected one. Rotavirus (16%) infections came as the second most frequent ones after the norovirus infections and there was the talk of a possible change in the dominant type of the gastroenteritis agents in our country. Despite the insufficient number of samples in the study, it is interesting to note that the study was composed of samples from various regions of our country and made a different conclusive contribution to the etiology of gastroenteritis. Similarly, in a study in the United States of America in which pediatric cases were included in the study, 2867 stool samples were investigated for norovirus, rotavirus and adenovirus, and it was found that viral etiology was in 44% of the patients, and norovirus, rotavirus and adenovirus positivity were 77%, 14% and 9% respectively (3). In order to investigate the viral agent frequency of acute gastroenteritis in our country, there is a need for multi-centric studies in which norovirus frequently mentioned especially in the acute gastroenteritis etiology in recent years are included and there is sufficient representation of more than one region.

The treatment of acute gastroenteritis caused by viral agents is a supportive one. Antibiotics and anti-diarrheic drugs have no place at all in its treatment. In this sense, in order to be able to take such general measures as taking personal and society-protecting steps, chlorinating the mains water, checking up on the filtering systems, we need the epidemiologic data of country-based viral agents (4, 5). In this sense, Gülen et al.'s study is a valuable one as it provides regional data. Another thing is, the gastroenteritis caused by the rotaviruses also described as a democratic virus has as similar frequency in the developed and developing countries regardless of hygiene conditions. Therefore, the only method of preventing the rotavirus diarrhea is vaccination (6). Within the inclusion of the rotavirus vaccine into the routine vaccine calendar, it will be possible to save the lives of hundreds of thousands of infants by enabling protection and control against the most important agent of childhood period gastroenteritis.

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