

Detection and Serotyping of Adenovirus in Patients with Symptoms of Acute Gastroenteritis in Tehran

Behzad Damavand*; Pedram Azimzadeh; Seyed Reza Mohebbi; Sara Romani; Sajjad Majidizadeh Bozorgi; Saman Milanizadeh; Farzane Jadali; Mohammad Reza Zali

Gastroenterology and Liver Diseases Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

behzad.damavand@yahoo.com

Background & Objectives: Adenoviruses are double-stranded DNA, icosahedral and non-enveloped viruses. It causes different diseases in human through Hungarian respiratory, urinary and gastrointestinal. Interestingly, more than fifty serologic types of human adenovirus were distanced and just serotypes 40 and 41 were diagnosed as the gastroenteritis causes in humans. Acute gastroenteritis occurs in all ages but in the child (1-5 years) and old people (more than 60s) is strongly serious. The purpose of this study is to evaluate the prevalence of adenovirus infection in patients with acute gastroenteritis in the population of Tehran.

Methods: During May 2008 to May 2009, 293 stool samples were collected from patients with acute gastroenteritis. After DNA extraction, PCR procedures were performed, using designed primers. Positive adenoviruses samples were analyzed by the software and their serotypes were determined.

Results: 6 positive samples out of 293 patients that recruited to the hospital were children under 5 years old. Additionally they were diagnosed as serotype 41 of adenoviruses F group.

Conclusion: According to our results, serotype 41 of adenovirus was as important leading causes of gastroenteritis in less than 5 years old children in population of Tehran.

Keywords: Adenovirus; Gastroenteritis; Tehran; Serotype 41