Respiratory Viral Infections and Coinfections Caused by Human Metapneumovirus in Children With Cancer

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To the Editors:

We read with interest the report by Torres et al[1] recently published, which reported clinical outcome and pathogen description of children with cancer, fever and neutropenia. This study showed that only respiratory viruses were detected in 350 of 1044 (34%) episodes, of which 66 (19%) were classified as a viral coinfections. They found that human metapneumovirus (hMPV) was predominantly associated with viral coinfections (single/coinfection: 4/7).

We prospectively collected nasal swabs from our children with cancer who presented with acute respiratory symptoms with or without fever and undergoing chemotherapy at Istanbul University Oncology Institüte, Istanbul, Turkey, between January 2014 and January 2015. Samples of 72 episodes of acute respiratory symptoms in 48 patients were evaluated. Respiratory viral pathogens were detected in 57% (41/72) of the analyzed samples and among these, 19.5% (8/41) of episodes were viral coinfections. In our study, hMPV infection was predominantly a single viral infection (single/coinfection: 2/1). Our results are similar to those of Chu et al[2] (single/coinfection: 43/12) and Söderman et al,[3] (single/coinfection: 2/0), showing that hMPV was predominantly associated with single viral infection in immunocompromised children with respiratory viral infections.

We speculate that the differentiation in hMPV coinfection incidence may be due to different years of the studies or to different geographic and social structures of the population. Further studies in different geographic areas are necessary to determine the agents and the description of the patients.

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Re: "Respiratory Viral Infections and Coinfections Caused by Human Metapneumovirus in Children With Cancer"

To the Editors:

We appreciate the comments by Büyükkapu et al on our published article on the clinical outcome of infections caused by different types of respiratory viruses in children with fever and neutropenia (FN) and cancer. The authors comment on the detection of 3 cases (2 single infections and 1 viral coinfection) of human metapneumovirus (hMPV), in 48 children with cancer who presented acute respiratory symptoms. In comparison to our work,[1] we reported all the detections of hMPV by a molecular study performed at admission in 1044 episodes of FN, irrespective of the presence of respiratory symptoms (65% of episodes with detection of any respiratory virus presented symptoms). Four of 11 detections of hMPV were single infections, with a median age of 6.5 years, all detected during the spring season and 3 of 4 presented respiratory symptoms at admission and diagnosis of lower respiratory tract infection at the time of discharge. Only one of these children required admission to the pediatric intensive care unit with oxygen and mechanical ventilation support (13 days). All children recovered completely from hMPV infection, as was also reported by Ali et al[2] of 30 children with cancer and detection of hMPV by direct fluorescent testing. We agree that collaborative studies are needed for a better understanding of hMPV infection in this susceptible population, where the role of the coinfection and the relevance of the geographic area remain to be elucidated.

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