Clinical spectrum and outcome of lower respiratory tract infections due to viruses in children (<5years)

Apoorva T Raju, Rajni Gaind, Ajay Kumar and Harish Chellani
Safdarjung Hospital, India

Statement of the Problem: Acute respiratory tract infections are leading cause of morbidity and mortality in children worldwide accounting for about 30% of all childhood deaths in the developing world. Viruses account for 50–90% of acute lower respiratory tract infections (ALRI) in young children. The increased sensitivity of polymerase chain reaction (PCR) over conventional methods for the diagnosis of respiratory viral infections has been established previously. There are conflicting results regarding multiple viral coinfections and its association with severity of the disease. This study reviews clinical spectrum and outcome of lower respiratory tract infections due to viruses in children of age <5 years with an emphasis on the influence of multiple respiratory virus detection versus single respiratory virus detection on the clinical spectrum and outcome.

Methodology: Children admitted with ALRI were tested for respiratory viruses after taking informed consent from the parents/guardian. A pre-designed proforma was used to record details of demographic profile, clinical presentation, underlying disease, laboratory investigations, treatment and course in the hospital and final outcome. A total 410 nasopharyngeal aspirates were subjected for Multiplex RT PCR.

Findings: The occurrence of viral LRTI in our study group is 46% with multiple virus detection rate of 14% and RSV was the most common causative agent. Though there were no significant differences in the clinical severity at presentation between those with LRTI due to the single virus and LRTI due to multiple viruses, there was a significantly longer duration of hospital stay in patients with LRTI due to multiple viruses.

Conclusion: Broadening viral diagnosis in respiratory tract infections may help clinicians to decrease unnecessary prescriptions of antibiotics, implement early antiviral treatments when available and prevent virus transmission. These data might be useful for planning the study of future respiratory virus vaccines or other interventions to reduce the disease due to viral LRTI.

Biography
Apoorva T Raju is a third year post graduate student in Paediatrics in Vardhman Mahavir medical college and Safdarjung Hospital.

atr0930@yahoo.com

Notes: