Human Bocavirus detection in Egyptian Infants with acute lower respiratory tract infection; correlation with clinical characterization and risk factors

Abstract

The recent advance in molecular technology allowed a wide range of novel viral etiological agents to be detected in the respiratory tract specimens. The Human bocavirus 1 (HBoV1) as a member of the Parvoviridae virus family, is a recently described human pathogen mainly associated with acute respiratory tract infection in children. The aim of this study was to identify the frequency and seasonal variation of HBoV infection in Egyptian infants presenting with symptoms of acute lower respiratory tract infection and to correlate it with the different clinical presentation. Pharyngeal swabs were collected from 100 infants less than 2 years presented with acute LRTI symptoms at Alzahraa University Hospital and Mataria Teaching Hospital in Cairo. All the collected samples were subjected to DNA extraction followed by PCR using different viral protein-targeted primer sets to detect bocaviruses. Bronchopneumonia was the prominent diagnosis (38%) followed by bronchiolitis (34%) and bronchitis (28%) subsequently. Prevalence of HBoV among studied patients was 8% and the peak of the infection was in winter (37.5%). In conclusion, current evidence suggests that even though HBoVs may be considered as a novel viruses, HBoV infection should be thought as a risk factor of LRTIs in children under 5 years old.

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