

Infection by human bocavirus in children

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Human bocavirus (hBoV) was discovered in 2005 in children with respiratory infection. Out of four genotypes (1-4) described, genotype 1 and 2 are associated with respiratory tract infections. Although initially considered responsible only for mild respiratory infections, there is increasing body of evidence that hBoV can cause severe respiratory infection and even death in children and adults.

We conducted a retrospective study among children aged < 18 years treated for PCR-confirmed hBoV respiratory tract infection at the University Hospital for Infectious Diseases “Dr. Fran Mihaljević” between November 1, 2016 and March 1, 2017. Demographic, clinical and laboratory data were further analyzed.

During the study period hBoV was discovered in 36 children with respiratory tract infection. Among them 18 (50%) were co-infected with another virus, mostly respiratory syncytial virus (RSV). Majority of the cases (17) were treated during January. There were 19 girls (53%) and 17 boys (47%). The mean age was 18 months, the youngest being 27 days and the oldest 39 months old. All children were diagnosed with low respiratory tract infection, 25 with pneumonia (69%) and 11 with bronchiolitis (31%). Predominant symptoms were cough (100%) and fever (83%). Ten children were admitted to hospital (28%) while others were treated as outpatients. Mechanical ventilation was performed in two patients, both co-infected with RSV of whom one died.

Human bocavirus is a causative agent of respiratory tract infection in children during winter season. All the analyzed children suffered from low respiratory tract infection, but the course of the disease was mild and self-limiting in children with hBoV as a single causative agent.