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Human metapneumovirus A/B acute respiratory infections in children in a central-east region of Tunisia

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The aim of this study was to describe Acute Respiratory Infections (ARIs) by human metapneumovirus A/B (hMPV A/B) from hospitalized infants and children (aged 1 month-5 years) in Farhat Hached University-Hospital of Sousse, Tunisia. During the period from September 2013 and December 2014, nasopharyngeal aspirates were obtained from 372 subjects and tested for the presence of hMPV A/B and other respiratory viruses using multiplex real-time RT-PCR. The distribution of hMPV A/B infection and its association with demographic information of patients and clinical symptoms were analyzed. In general, in 342 (91.9%) of the samples, at least one pathogen was detected. The hMPV A/B was described in 16.1% (60/372) of tested specimens, and was more described in multiple infections (96.7% from total hMPV A/B infections). The hMPV A/V was more frequent in children aged 1-3 months (5.9% of enrolled samples), in male cases (66.7%), in subjects living in urban environment (66.7%), in primary care at home and not in daycare (60.0%), and 60.0% were living with siblings. Regarding ARIs, 10.0% of infected cases were admitted in intensive care unit, 75.0% of cases were diagnosed for bronchiolitis, and 18.3% had rhinitis. In addition to hMPV A/B ARIs, 23.3% of subjects had bacteria super-infection. A total of 5/60 hMPV A/B infected cases ended fatal. This study described the high prevalence of hMPV A/B ARIs in infants and children in Sousse, Tunisia. Such findings will be helpful for the better understanding of its circulation and for the implementation of prevention strategies in the community.

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