Respiratory Syncytial Virus and Influenza Infections among Children <=3 Years of Age with Acute Respiratory Infections in a Regional Hospital in Hong Kong

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Abstract

Objective: To study the demographic features, clinical manifestations, and hospitalisation rate in children <=3 years of age with respiratory syncytial virus (RSV) and influenza infections. Method: Retrospective review of case records of children <=3 years admitted to paediatric department of a regional hospital in Hong Kong with RSV or influenza infection from 1st January 2004 to 31st December 2004. Results: During the 1-year study period, 561 children <=3 years of age were admitted with acute respiratory infection, which accounted for 32.3% of total acute admissions in this age group. Ninety (16.0%) and sixty five (11.6%) of them were infected with influenza and RSV respectively. The majority of children with RSV infection presented with cough (98.5%), wheezing (56.9%) and crepitation (67.7%). When compared with those with influenza infection, children with RSV were younger (12.05 ± 10.07 vs. 18.43 ± 10.67 months, p=0.001), and more commonly hospitalised for acute bronchiolitis (52.3% vs. 5.6%, p< 0.05). Chest X-ray abnormalities were more often detected in RSV infection (53.1% vs. 16.7%, p< 0.05). Children infected with influenza had higher temperature (39.44 ± 0.73°C vs. 39.16 ± 0.6°C, p=0.046), and longer duration of fever (4.06 ± 2.37 days vs. 2.77 ± 2.69 days, p< 0.05) than those with RSV. Four patients (6.2%) with RSV infection were admitted to PICU and none in the influenza group. There was no fatality. Sixteen (16/155, 10%) ex-premature infants or children were admitted for respiratory tract infection. Fourteen and two were infected with RSV and influenza, respectively. Conclusion: In our locality, children <=3 years of age with acute respiratory tract infection requiring hospitalisation is mainly due to RSV and influenza virus. The PICU admission and mortality rates were low among these children.

Keyword: Acute Respiratory Infections; Influenza; Respiratory Syncytial Virus