Epidemiology, clinical characteristics, laboratory findings and severity of respiratory syncytial virus acute lower respiratory infection in Malaysian children, 2008–2013

ABSTRACT

Aim: The aim of this study is to describe epidemiology, clinical features, laboratory data and severity of respiratory syncytial virus (RSV) acute lower respiratory infection (ALRI) in Malaysian children and to determine risk factors associated with prolonged hospital stay, paediatric intensive care unit (PICU) admission and mortality. Methods: Retrospective data on demographics, clinical presentation, outcomes and laboratory findings of 450 children admitted into Tuanku Jaafar Hospital in Seremban, Malaysia from 2008 to 2013 with documented diagnosis of RSV ALRI were collected and analysed. Results: Most admissions were children below 2 years old (85.8%; 386/450). Commonest symptoms were fever (84.2%; 379/450), cough (97.8%; 440/450) and rhinorrhea (83.6%; 376/450). The median age among febrile patients (n = 379) was 9.0 months with interquartile range (IQR) of 4.0-19.0 months whereas the median age among those who were apyrexial (n = 71) was 2 months with IQR of 1-6 months (P-value <0.001). 15.3% (69/450) needed intensive care and 1.6% (7/450) died. Young age, history of prematurity, chronic comorbidity and thrombocytosis were significantly associated with prolonged hospital stay, PICU admission and mortality. Conclusions: Infants less than 6 months old with RSV ALRI tend to be afebrile at presentation. Younger age, history of prematurity, chronic comorbidity and thrombocytosis are predictors of severe RSV ALRI among Malaysian children. Case fatality rate for Malaysian children below 5 years of age with RSV ALRI in our centre is higher than what is seen in developed countries, suggesting that there is room for improvement.

Keyword: Children; Clinical; Respiratory infection; Respiratory syncytial virus