

garia between mid July and December 2007. Stool specimens of hospitalized children for infectious diarrhea are tested for RV with ELISA and PAGE. All samples were also cultured for common bacterial enteropathogens.

**Results:** Of the 152 children enrolled, 81 (53%) had a stool specimen tested for RV. Rotavirus was identified in 25 (31%) stool specimens. The peak incidence of RV infection was in December. The mean age of the patients (9 girls, 16 boys) was 14 months. Fever, vomiting, diarrhea and dehydration were the commonest symptoms, usually in combination. Diarrhea was severe in 19 cases. Fifteen had watery, 9 - mucous and 1 - bloody diarrhea. Six had respiratory tract symptoms, 2 - exanthema. In 2 children RV was detected in association with *E coli*. All patients recovered smoothly following proper fluid treatment.

**Conclusion:** The spectrum of symptoms of RV infection in children might be broader than previously recognized.

doi:10.1016/j.ijid.2008.05.201

15.046

#### A Study of Serum C-Reactive Protein (CRP) at Admission as a Predictor of Outcome in Febrile Children

S. Mundkur\*, S. Aroor, N. Bhaskaranand, P. Kini, M. Sarma  
Kasturba Medical College, Manipal, India

**Aim:** To study the usefulness of serum CRP at admission as a predictor of outcome of in febrile children.

**Type:** Retrospective.

**Methods:** All febrile children, between the ages of 1 month to 18 years, admitted to the pediatric ward were enrolled. Their serum CRP at admission was measured by semi-quantitative slide agglutination method and they were divided into two groups- "CRP-negative" with CRP  $\leq 6$  mg/L and "CRP positive" with  $>6$  mg/L. The final outcome was measured in terms of mortality, time taken for defervescence, duration of antimicrobial therapy and average length of hospital stay. The results were statistically analyzed.

**Results:** A total of 215 children were enrolled in the study with a mean decimal age of 4.9 years (0.2–16.7 years). Serum CRP at admission was  $\leq 6$  mg/L in 89 children (41.3%) and  $>6$  mg/L in 126 (58.7%) children. In CRP positive group, 101 children (80.2%) took more than 7 days for defervescence as compared to only 15 in CRP negative group ( $p < 0.01$ ). In 76.4% ( $n = 108$ ) of CRP positive children, duration of antibiotic therapy required was more than 14 days as compared to only 15.7% in CRP negative children ( $p < 0.01$ ). Average length of hospital stay was more than 14 days in 76 CRP positive children (60.3%) and 21 CRP negative children as compared to less than 14 days in 50 and 68 children in CRP positive and negative group respectively ( $p < 0.01$ , OR 4.92). Eight CRP positive children expired ( $p < 0.05$ ). Serum CRP value showed 100% sensitivity and 58.9% specificity for prediction of mortality at a value of 18 mg/L or more.

**Conclusions:** It can be predicted that, if CRP at admission is more than 6 mg/L it is likely that the duration of Antibiotic therapy is more than 14 days, time taken for defervescence is more than 7 days, average length of hospital stay is more

doi:10.1016/j.ijid.2008.05.202

15.047

#### Fatal Lower Respiratory Tract Infections with Rhinovirus A in Infants in Vietnam

P.H. Phan<sup>1,\*</sup>, H. Wertheim<sup>2</sup>, S.T. Luong<sup>1</sup>, B.T. Ngo<sup>2</sup>, H.V. Pham<sup>1</sup>, T.T. Nguyen<sup>3</sup>, H.T. Le<sup>1</sup>, W. Taylor<sup>2</sup>, P. Horby<sup>2</sup>, N.T. Liem<sup>1</sup>

<sup>1</sup> National Hospital of Pediatrics, Hanoi, Vietnam

<sup>2</sup> Oxford University Clinical Research Unit, Hanoi, Vietnam

<sup>3</sup> Saint-Paul Hospital, Hanoi, Vietnam

**Background:** Rhinovirus is one of the commonest causes of upper respiratory tract infections. Recent reports show that rhinovirus can also cause severe lower respiratory tract infections, especially in individuals with a history of pulmonary disease or immune deficiency. Here we report a series of severe lower respiratory infection with rhinovirus characterized by Acute Respiratory Distress Syndrome (ARDS) in infants in Vietnam.

**Methods:** Twelve infants with severe acute respiratory tract infection were admitted to the pediatric intensive care units in two hospitals in Hanoi from December 2007 to February 2008. Data on demographics, clinical features, chest radiography, and outcome were collected. Respiratory specimens were tested by bacterial culture and multiplex reverse transcriptase polymerase chain reaction (RT-PCR) for 12 respiratory viruses (Seeplex RV kit, Seegene, Korea).

**Results:** Data were collected on 12 hospitalized infants (female 11/12) aged from 2 to 4 months. One had a medical history of congenital hypothyroidism and one was HIV positive. Seven infants were underweight (body weight more than 2SD below mean expected weight-for-age). Rhinovirus A was detected in all patients by RT-PCR. Co-infection with RSV and adenovirus was detected in two cases. All infants presented typical respiratory symptoms with cough, coryza, wheeze, dyspnea, and 50% (6/12) had fever. Acute respiratory distress syndrome developed in all patients a mean of 8.3 ( $\pm 5$ ) days after onset, with severe hypoxia (mean PaO<sub>2</sub>/FiO<sub>2</sub> ratio was  $66.01 \pm 30.63$ , range from 25.1 to 131). Chest radiographs showed marked bilateral infiltrates. Median white blood cells and lymphocytes were 15150 and 5665 per cubic milliliter, respectively. Seven patients died, three recovered, and two are still in critical condition.

**Conclusions:** Rhinovirus can cause severe lower respiratory infection with high mortality. The reasons for the high mortality experienced in this outbreak require further investigations.

doi:10.1016/j.ijid.2008.05.203