CLINICAL CAPSULES

Flu Pneumonia Rare, Mild in Children

Pneumonia was found in 14% of 936 children aged younger than 16 years with influenza, reported Dr. Elina Lahti of Turku (Finland) University Hospital and her colleagues. Nearly half (47%) of the children with both illnesses showed no specific clinical symptoms of pneumonia, and the impact of the influenza virus on the cause of pneumonia remains uncertain (Pediatr. Infect. Dis. J. 2006;25:160-4). The researchers reviewed the chest radiographs of children treated as both inpatients and outpatients in a university hospital from 1980 to 2003, including 743 cases of influenza A and 193 cases of influenza B. Pneumonia was found in 111 (15%) of children with influenza A and in 23 children (12%) with influenza B. There were no significant differences in laboratory or radiologic findings between the influenza A and B groups. Overall, 89% of the children with influenza and pneumonia had white blood cell counts below 15.0 x 10^9/L and 55% had C-reactive protein concentrations at normal levels or slightly increased (to less than 20 mg/L). About half of the chest radiographs showed alveolar infiltrates, which suggests viral pneumonia, the researchers noted. Almost all of the children recovered without severe adverse events, although four children required ventilator care and one 12-year-old girl with congenital muscular dystrophy died due to severe pneumonia. The findings suggest that influenza pneumonia usually is benign in children and that influenza does not significantly increase the overall burden of pneumonia in previously healthy children, Dr. Lahti and her colleagues said. However, the disease burden was greater among young children—nearly two-thirds of the children in the study were aged younger than 3 years and 75% of these children were hospitalized for their illnesses.

Climate Change Shortens RSV Season

Global warming could be curtailing the respiratory syncytial virus season in England and Wales, according to a study by Dr. Gavin C. Donaldson of University College London. The seasons associated with both respiratory syncytial virus (RSV) isolation rates in laboratories and with RSV-related emergency department admission rates in England and Wales were significantly shorter—3.1 weeks and 2.5 weeks, respectively—during 1981-2004 for laboratory RSV and 1990-2004 for patients admitted to the emergency department with bronchiolitis, compared with rates in previous years (Clin. Infect. Dis. 2006;42:677-9). Dr. Donaldson reviewed the annual mean daily temperatures recorded at four locations in order to calculate the average temperatures for central England during the study periods. Overall, the average temperature increased from 9.2° C in 1981 to 10.5° C in 2004. The start of the RSV season was defined as the first week in the year in which the number of viral isolations and hospital admissions topped an established threshold, and the end of the season was the first week of the year in which the numbers fell below that threshold. The threshold was set at 60% of each year's average weekly number of isolations and hospital admissions. The findings were essentially similar if the threshold was set at 50% or 70%, although the relationship between hospital admission and temperature was not statistically significant when the threshold was set at 50%. Despite these findings, data on the association between RSV and temperature remain contradictory.

Strep Changes Cut Rheumatic Fever

Nonrheumatogenic types of group A streptococcus may be replacing rheumatogenic types in cases of acute streptococcal pharyngitis in children, said Dr. Stanford T. Shulman of Northwestern University and his colleagues. This change could be contributing to the decline of acute rheumatic fever among children in the United States, based on a comparison of data on M-type isolates from children in Chicago during 1961-1968 with data from children from Chicago and nationwide during 2000-2004 (CID 2006;42:441-7). Several rheumatic types of group A streptococcus—3, 5, 6, 14, 18, 19, and 29—were present in nearly 50% of 468 pharyngeal isolates from the 1961-1968 period, but comprised only 11% of 450 isolates from the Chicago area and 18% of 3,969 isolates nationwide during the 2000-2004 period. In contrast, the proportion of several nonrheumatogenic types—2, 4, 22, and 28—increased significantly between the study periods, from about 5% to nearly 28% of isolates, both in Chicago and nationwide. Rheumatic types 14, 18, 19, and 29 essentially vanished during the years between the two study periods. The other most significant decreases occurred in rheumatic types 3, 5, and 6, which comprised 35% of the Chicago isolates during the first study period, when acute rheumatic fever was still prevalent, but only 10% of Chicago isolates during the second study period, when acute rheumatic fever had become rare.

—Heidi Splete

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