

Viral etiology of respiratory infections in children under 2 years old in Blida

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Acute respiratory infection (ARI) is a leading cause of morbidity and mortality in children worldwide, especially in developing countries.

Viruses are recognized as the predominant causative agents of acute respiratory infections. In Algeria, few data concerning the causes of respiratory infections are available and none on the incidence of emergent viruses.

The aim of our study was to investigate the incidence of 10 viruses in children less than 2 years of age admitted with lower AR/ at a tertiary teaching hospital in Algeria and to study demographic and clinical differences among different virus.

METHODS:

Children under 2 years old hospitalized for lower ARI were prospectively enrolled between December 2010 and April 2011 .

A standardized questionnaire was used and a nose or nasopharyngeal swab sample was collected from each patient.

These samples were tested for the detection of RSV, influenza virus A and B, human Rhino virus, human metapneumovirus, human coronavirus, adenovirus, para influenza 1-3, by reverse-transcription-polymerase chain reaction multiplex RT-PCR.

Demographic, clinical and laboratory data were obtained from patient medical files. Main outcome measurements were age, breastfeeding history, clinical severity score, chest radiological findings,

number of days of hospitalization.

RESULTS:

117 children with a median age of 3 months were recruited. A virus was detected in 82,9% of the 117 infants.

The most frequently detected viruses were RSV (48%), Human Rhino Virus (23%), Human Métapneumovirus (22%), Adenovirus (7,5%), Influenza (5%), para influenza 3 (2,5%). Co-infections were particularly common being detected in 25 children (21,4%) .

A unie viral infection was present in 72 children (62%). Clinical features associated with RSV infection were similar to those of other respiratory viruses.

Presenting symptoms between the RSV positive and RSV negative groups were similar.

CONCLUSION :

This study underlines the importance of viral pathogens in lower ARI in hospitalized children less than 2 years old.

Overall, respiratory syncytial virus was the most frequently identified virus.

HMPV and RV are also important cause of acute respiratory infections in children in Algeria.

Longer surveillance studies are needed to better understand the seasonal epidemiology