
Viral and bacterial causes of acute lower respiratory tract infection in children

Abeer Ahmed Aboul Azm

ALRTIs are the leading cause of mortality, and a common cause of morbidity in children below 5 years of age. They account for 90% of the deaths caused by respiratory diseases and represent 10% of deaths resulting from all causes in infants younger than one year. The epidemiological studies of acute respiratory infections in children are difficult to be performed and interpreted, due to difficulty in collecting adequate and representative materials and due to the lack of sensitive and reliable diagnostic methods. Nevertheless, several prospective studies have recently investigated the role of viruses, bacteria, and atypical bacterial agents in the etiology of ALRTIs, using cultures, immunological methods, PCR, or combinations of these methods. Bronchiolitis, pneumonia and acute tracheobronchitis are the main clinical forms of ALRTI in children and may be caused by different viral and bacterial agents. Any single virus can cause more than one of these ALRTI syndromes to occur simultaneously or progressively in the same child and may be associated with manifestations of upper respiratory tract infection including otitis media, pharyngitis and coryza. The aim of the work is identification of the etiological viral and bacterial causes of ALRTI in children. This work was carried out in Microbiology and Immunology Department of Benha Faculty of Medicine from January 2004 to January 2005 and included 40 pediatric patients admitted in Pediatric Department.