

A-02 A study of viral aetiology in lower respiratory tract infections of children below two years of age

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Lower Respiratory Tract Infections (LRTI) are a major cause of morbidity and mortality in children, and respiratory viruses are the primary causative agents in most of these cases.

Objectives: To detect the viral agents responsible for LRTI in children below 2 years of age and to study any correlations with factors such as age, sex, disease syndrome and rainfall.

100 children below 2 years of age, with signs and symptoms of LRTI, were studied from February to July 1996. Nasopharyngeal aspirates collected using a locally made mucus aspirator were transported to the laboratory, packed in ice. These specimens were washed several times with phosphate buffered saline to remove flecks of mucus and the centrifuged cell deposit was spotted on to teflon coated well slides. These were dried at room temperature, fixed in acetone and then stained with fluorescein conjugated antisera against influenza, para-influenza, adeno and respiratory syncytial viruses (RSV) and examined under a fluorescent microscope for apple green fluorescence (FAT).

Of the 100 patients tested, respiratory viruses were detected in 30:28 were RSV and 2 were para-influenza. RSV positive patients presented with signs and symptoms of wheezy bronchitis/ bronchiolitis and were seen during the rainy season. More males (18/28) were affected than females (10/28) and a higher proportion (20/28) was in the 0-6 months age group. One patient with para-influenza presented with acute laryngo-tracheo-bronchitis.

Conclusions: A significant number of LRTI in children below 2 years of age were caused by RSV. The direct FAT was found to be a useful, simple and rapid test.