

## SUMMARY

Acute respiratory tract infection (ARI) is a major cause of illness in children throughout the world. The incidence of upper respiratory tract infections (URTI) is similar in both developing and developed countries. But the incidence of lower respiratory tract infections (LRTI) is higher in the developing world. Respiratory viruses are the underlying primary agent of most lower respiratory tract infections.

This study was designed to identify the causative viral agents with particular reference to respiratory syncytial virus (RSV) in children less than 2 years of age with lower respiratory tract infections.

Naso-pharyngeal aspirates (NPA) were collected from 100 patients below 2 years of age admitted to the Lady Ridgeway Hospital with signs and symptoms of lower respiratory tract infection, from January to July, 1996. Viral antigens were detected by the direct fluorescent antibody test (DFT) using fluorescein labelled virus specific monoclonal antibody (Imagen - Dako Diagnostics). Isolation of respiratory syncytial virus was attempted on HEp2 cells. Sensitivity of these 2 methods in detecting respiratory syncytial virus infection was compared. Correlation of respiratory syncytial virus infection with factors such as age, sex, parents income and education, exposure to smoke and relationship to rainfall were studied.

Thirty one out of 100 (31 %) patients showed evidence of viral infections. Twenty nine (29 %) were due to respiratory syncytial virus and 2 (2 %) were due to parainfluenza virus. No mixed infections were detected. The majority (93 %) of RSV positive cases were diagnosed as bronchiolitis / wheezy bronchitis.

Higher proportion of RSV infections was seen among males (31 %) and most patients were in the 0 - 6 months age group (36.4 %). Most cases of RSV were detected in the months of June and July when there was increased rainfall in the Colombo district. There was no significant correlation between the parents income / educational level and the respiratory syncytial virus infection.

Direct fluorescent antibody test was found to be a sensitive and rapid diagnostic test for the detection of respiratory syncytial virus. The results could be made available on the same day and as such this test would be most valuable in the management of the patients. The unnecessary use of antibiotics could be avoided and measures could be taken to control the spread of the infection in the ward.