Abstracts

912 INCIDENCE OF CYTOMEGALOVIRUS(CMV) PNEUMONIA AMONG CHILDREN PRESENTING WITH SEVERE LOWER RESPIRATORY TRACT INFECTION AT DR GEORGE MUKHARI HOSPITAL
doi:10.1136/archdischild-2012-302724.0912
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Background Pneumonia is a major cause of morbidity and mortality in under-five children with about 5 million deaths annually in developing countries1. CMV is responsible for serious morbidity and mortality in immunodeficient children with pneumonia2.

Objective To determine the incidence of CMV associated pneumonia in children with severe lower respiratory tract infection (LRTI).

Methods Under-5 year children with severe LRTI were enrolled over a 12-month period. Severity criteria: accessory muscle use, supplemental oxygen, or assisted ventilation. Anthropometry and HIV status were recorded.Throat swabs were taken for CMV PCR and CMV serology was done. Consent and ethical approval obtained.

Results 107 children, aged 2 weeks to 46 months (mean 5.96 mths) enrolled. Incidence of laboratory confirmed CMV was 40% (55/87); 67% among HIV-infected and 28% among HIV-uninfected (p = 0.05). Of 100 children tested for HIV infection, 30% were positive (30/100). The mean ages of HIV-infected and uninfected children were similar (5.8±3.77 vs 5.99±4.43 respectively). There was a slight difference in height-for-age Z-scores between HIV-infected (−2.51±2.22) and uninfected (−1.17±3.41) (p = 0.07). Incidence of CMV was not associated with age or nutritional status. There were 18 deaths, 17% mortality; this was significantly higher (p < 0.01) among HIV-infected children (40%) than in HIV-uninfected (9%). Mortality was higher amongst those with positive CMV throat swabs (20%) compared to negative CMV throat swabs (12%), (not statistically significant). Children with a positive throat CMV were likely to receive assisted ventilation (17%) compared to those with negative throat CMV (11.5%), not significant (p = 0.058).

Conclusion Many under-5 children with severe LRTI had laboratory confirmed CMV infection. Incidence and mortality rate of CMV is higher in HIV-infected children and these patients are likely to require assisted ventilation.

913 DETECTION OF RSV TYPES A & B AND INFLUENZA VIRUS TYPES A & B IN CAP BY REVERSE TRANSCRIPTION-MULTIPLEX PCR
doi:10.1136/archdischild-2012-302724.0913
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Respiratory syncytial virus (RSV) type A and B, influenza A and B cause about 80% of viral lower respiratory tract infections. Multiplex RT-PCR has a significant advantage in that it permits simultaneous amplification of several viruses in a single reaction facilitating cost-effective diagnosis and perhaps improved clinical management. In this study, our aim was to determine the frequency of Influenza A and B, and RSV types A and B among children with community-acquired pneumonia (CAP), by the use of the newly developed rapid, accurate, and pathogen-specific technique of multiplex RT-PCR. This study is a cross-sectional study involving 24 children admitted to Children’s Hospital of Ain Shams University due to severe lower respiratory tract infection (LRTI). Clinical and radiological assessment of all patients were performed followed by molecular analysis of both respiratory and blood samples of all