

OP9

**Analysis of viral pathogens in children with community acquired pneumonia (CAP) at two selected teaching hospitals in Colombo, Sri Lanka**

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**Background:** Community acquired pneumonia is an important cause of morbidity and mortality in children. Infection is caused by many different organisms and rational treatment depends on the identification of causative agents.

**Objectives:** To describe the viral pathogens in community acquired pneumonia in children at two selected teaching hospitals in Colombo.

**Methods:** A descriptive cross sectional study was carried out including 123 children, 3 months to 14 years of age admitted to two teaching hospitals with a clinical diagnosis of CAP. A nasopharyngeal sample was collected from each child and analyzed using multiplex real time PCR assay. FBC and CRP were done. Chest X-rays were blindly reported by a radiologist and categorized into 3 groups according to the WHO classification 1) Primary end-point consolidation/pleural effusion 2) Other consolidation/infiltrate 3) No consolidation/infiltrate/effusion.

**Results:** Female to male ratio of this group was 1.5:1 and mean age was 40 months. The mean values for CRP and WBC were 51.41mg/L and 14.97/μL respectively. Out of

123 samples one was negative for any organism. At least one virus was detected in 111 samples (90.2%). A single virus was present in the majority (60.4%) of cases and multiple viruses in the rest (39.6%). The commonest was Respiratory Syncytial virus (43.2%). Rhino, Parainfluenza and Adeno viruses were more abundant than Influenza A, Corona, Influenza B, Boca, Metapneumo, Entero and Parecho viruses. Both bacteria and viruses were detected in 77 samples. Ninety CXRs were reported in the group positive for viruses and category 2 was the commonest (55.6%).

**Conclusions:** Viruses are predominant in paediatric CAP and co-infections with multiple viruses are fairly common.

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