สถาบันสุขภาพเด็กแห่งชาติมหาราชนี

Pneumonia among children in Bangkok Thailand

วารุณี พรรณพานิช วานเดอพิทท์
Abstract

Background
Pneumonia is the leading cause of death among children worldwide, especially in children under the age of five [7], and a previous study showed that the Asian population were at higher risk [16]. In the light of an increasing problem with drug resistant Streptococcus pneumoniae it is now time to shift our attention towards a more preventive perspective with an increased focus on risk factors.

Objective
To identify key epidemiological risk factors and clinical manifestations that contributes to the present situation.

Method
An observational prospective study conducted at Queen Sirikit National Institute of Child Health during November 2011 to January 2012. Parents to children under the age of six admitted to the hospital with community acquired pneumonia was asked to let their child participate in the study. Data was collected by a questionnaire addressing potential risk factors and clinical proceedings.

Results
The number of patients included in the study were 125, out of which 83 (66%) were boys and 95 (76%) below the age of two. Boys were found to have a higher rate of previous hospitalizations. The vaccination rate was low, especially Pneumococcal Conjugate Vaccine, PCV, with a coverage of 6%. The vaccination rate was higher among those older than two years, and showed a trend toward being more frequent among boys. Those vaccinated tended to be better off financially.

Malnutrition was seen in 38% of the patients. Exposure to air pollution was seen in 85% of the cases. Lack of exclusive breast feeding was also common and was seen in 82% of the cases, and 64% had a smoking parent. However, the numbers representing lack of exclusive breast feeding and smoking parents were consistent with that of the general Thai population.

Conclusions
Children under the age of two, especially male children seemed to be at higher risk of pneumonia. The uneven sex distribution needs to be further investigated to determine potential biological differences. It is also evident, that there is a great potential of reducing the disease burden among those younger than two years by increasing the vaccination coverage.