

Abstract

Background. Pneumococcus is the most important pathogen of bacterial pneumonia, bacteremia, meningitis, otitis media and sinusitis in human. There has been at least 90 serotypes of pneumococcus being identified to date. Currently licensed pneumococcus vaccine contains 23 serotypes that may cover 85-90% of pneumococcus strains in invasive diseases. This study is aimed to evaluate the safety and efficacy of pneumococcus vaccine.

Methods. In May 2000, a total of 1378 people living in institutes for chronic care was enrolled and received pneumococcus vaccines. The age is $74.99 + 11.34$ years in average. Another 1022 people living in institutes for chronic care were also enrolled to serve as a control. Their age averaged $75.45 + 9.24$ years.

Results. The most common adverse reaction to vaccination is pain of injection site (5.52%), followed by fever (2.98%). Incidence of other adverse reactions was all below 2%. The hospitalization rate of 36.6% in the vaccine group was significantly lower than the rate of 42.4% in the control group ($P = 0.0038$). The data also showed that influenza vaccine can lower the hospitalization rate and the occurrence of pneumonia other than pneumococcus infection and sepsis other than pneumococcus infection. After controlling the factor of influenza vaccine, the hospitalization rate was still lower in those who had received pneumococcus vaccination.

Conclusions. Pneumococcus vaccine is effective and safe in the elderly in Taiwan.

Keywords : pneumococcus ; elderly ; vaccine ; pneumonia