

Abstract

Streptococcus pneumoniae is one of the major causes of serious community acquired infection disease especially in young children and elderly patients. It is the leading pathogen associated with pneumonia, bacteremia, and meningitis. In recent 5 years, there are many studies regarding S. pneumoniae epidemiologic surveillance, antibiotic resistance, serotype and genotype in Taiwan. We had one the highest levels of antibiotic resistant pneumococcus in the world and some novel 23F and 19F clones.

This study was conducted to continue investigate the invasive S. pneumoniae infection including the epidemiological surveillance, antibiotic resistance, serotype and genotype. From Jan. through Dec. 2002, pneumococcal isolates from 201 patients with invasive disease. The major age distribution was 29.4% and 42.7% from patients less than 5 years and older than 60 years respectively. The most common invasive disease in the order was pneumonia, bacteremia and meningitis. The all mortality rate was 21.9%. The most prevalent serotype encountered in the invasive isolates was 14 follow by 23F, 19F, 6B and 3. The antibiotic susceptibility data revealed penicillin resistance was 66.7% (23.9% was high-level resistance) ; cefuroxime resistance was 56.7%; cefotaxime resistance was 35.8%; macrolide resistance was 86.6%; ofloxacin resistance was 2.5%, but all isolates sensitive to vancomycin. Molecular typing showed a high degree of polymorphism among the isolates, without novel clonal distribution. According to the results of this study, there was no remarkable change of epidemiological data, common serotype and antibiotic resistance rate. We suggest continue surveillance invasive S. pneumoniae infectious disease in Taiwan may be conducted 3 to 5 years later.

Keywords : Streptococcus pneumoniae ; antibiotic susceptibility ; serotype