

## Abstract

*H. influenzae* is a fastidious, gram-negative, pleomorphic coccobacillus that can be divided into two groups: encapsulated and non-encapsulated types. Some isolates that are surrounded by a polysaccharide capsule can be serotyped into six antigenically and biochemically distinct types, designated a-f [1]. In clinically, *H. influenzae* organisms cause meningitis, pneumonia, epiglottitis, cellulitis, septic arthritis in neonates and children [2]. Although a dramatic decrease in the prevalence of infections due to this organism after an effective vaccine was introduced, yet mortality and morbidity from *H. influenzae* type b (Hib) infection remain a problem worldwide, primarily in neonates, and immunocompromised children [3-5]. The annual incidence of invasive disease in Taiwan was estimated to be 1.5-2 cases/100,000 children less than 5 yr of age/yr that was relatively low compared with western countries. Because of limited reports of the Hib nasopharyngeal carriage prevalence in Taiwan, this study was aimed to define the overall carriage rate for *H. influenzae* among the healthy children in the community. In addition, antibiotic susceptibility, serotype incidence and the clonal relationship of these strains will be done. From Jan. to Dec. 2003, 32 *H. influenzae* strains isolated from nasopharyngeal of 642 healthy children. Among these strains, 4 isolates belong to type b; others are nontypable, the carriage rate of Hib is 0.6% . Antibiotic susceptibility test revealed ampicillin resistant rate is 62.5% , cotrimoxazole resistant rate is 46.9% , and resistant to azithromycin, chloramphenicol and tetracycline are 6.3% ,28.1% and 28.1% respectively, all strains sensitive to the second and the third cephalosporins. From the results of this study, the nasopharynx carriage rate of Hib are very low in Taiwan, this may be explain why the incidence of invasive Hib disease was also low in Taiwan.

keywords : *Haemophilus influenzae* ; antibiotic susceptibility ; carriage rate ; serotype