

Abstract

Respiratory adenoviruses infections occur chiefly in infants, young children and mainly in winter and spring. Since the 51 stereotypes have been described and classified into 6 subgenera, A to F. respiratory infections of adenoviruses are caused by stereotypes from subgenus B(Ad 3, Ad 7, Ad 14, Ad 35), subgenus C (Ad 1, Ad 2, Ad 5), and subgenus E (Ad 4). Adenovirus type 7 is one of the most common causative agents of severe illness, such as pneumonia and death. In Taiwan, adenovirus is the third reason for respiratory infections in infants and young children, which less than enterovirus and respiratory syncytial virus.

The 125 specimen used in this study are isolated by respiratory virus laboratory of center for disease control, Taiwan, during 1999 to 2004. In this study we used the polymerase chain reaction (PCR) and sequence to obtain correct serotype (to compare by GenBank). Further, we proceed the restriction fragment length polymorphism (RFLP) for genotype Ad 7.

Serotype data shown the Ad3 (54.4%) is the main isolate in this study and Ad1 (12.8%) is the second. Furthermore, we found an Ad 3 peak in 2002. RFLP analysis suggests only one genotype Ad 7(7b) in Taiwan. Summarize the outcome we offered important information about the trend of respiratory adenovirus infections and the Ad7 genotypes during 1999~2004. This information is important for the control measure of the diseases, as well as provides the information of rapid test development.

Keywords: Adenovirus ; Serotype ; restriction fragment length polymorphism(RFLP)