

Laboratory-based surveillance and molecular epidemiology of influenza virus in Taiwan.

劉永慶

Shih SR;Chen GW;Yang CCYang WZ;Liu DP;Lin JH;Chiu SC;Cheng HY;Tsao KC;Huang CG;Huang YL;Mok CK;Chen CJ;Lin TY;Wang JR;Liu YC

摘要

Abstract

A laboratory-based surveillance network of 11 clinical virological laboratories for influenza viruses was established in Taiwan under the coordination of the Center for Disease Control and Prevention (CDC), Taiwan. From October 2000 to March 2004, 3,244 influenza viruses were isolated, including 1,969 influenza A and 1,275 influenza B viruses. The influenza infections usually occurred frequently in winter in the northern hemisphere. However, the influenza seasonality in Taiwan was not clear during the four seasons under investigation. For example, the influenza A viruses peaked during the winters of 2001, 2002, and 2003. However, some isolated peaks were also found in the summer and fall (June to November) of 2001 and 2002. An unusual peak of influenza B also occurred in the summer of 2002 (June to August). Phylogenetic analysis shows that influenza A isolates from the same year were often grouped together. However, influenza B isolates from the year 2002 clustered into different groups, and the data indicate that both B/Victoria/2/87-like and B/Yamagata/16/88-like lineages of influenza B viruses were cocirculating. Sequence comparison of epidemic strains versus vaccine strains shows that many vaccine-like Taiwanese strains were circulating at least 2 years before the vaccine strains were introduced. No clear seasonality of influenza reports in Taiwan occurred in contrast to other more continental regions.

I