Abstract

The pathogen causing SARS is a newly discovered species of cronovirus. Since people at large have no antibody in their blood, it may well make the virus highly contagious, virulent and pathogenic. The mortality rate of the disease is much higher as compared with infections by other known species. During the 2003 outbreaks in Taiwan, many earlier sufferers of SARS turned out to be health workers attending SARS patients. Along with the wider spread of the virus, more people in other walks of life became infected. Nevertheless, as far as healthy people are concerned, this disease is very lethal and death will visit real fast if infected. And we have found the mortality is greatly hinged on whether the patient can obtain early and proper medical care.

Since ELISA has the advantages of great speed and high sensitivity, it became lately one of the major diagnostic tools for many diseases. However, ELISA in general is opt to show nonspecific reactions and thus tends to give somewhat undesirable false positive results. Usually, this shortcoming can be effectively corrected in lab by using monoclonal antibody. In this study, we have already prepared a monoclonal antibody against the SARS virus by hybridoma technique. From this point on, we plan to design an IgM-capture ELISA fast diagnostic test kit for the SARS infection detection in the hope that we can greatly shorten the time needed. The establishment of this new assay system would make SARS case detection and confirmation more effective in terms of timing and integration, and afford quick reference for disease control policy formulation.

Keywords: monoclonal antibody；hybridoma；IgM-Capture ELISA；neutralization test