

Review

Swine flu in Asia

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Abstract

Emerging swine flu (variant H1N1 influenza virus infection) is a new problem in medicine. The outbreaks in Mexico, USA and Canada bring attention to medical scientists that this infection might finalize in the global pandemic situation. In this specific paper, the author hereby discusses on the situation of swine flu in Asia.

Keywords: Swine flu; Asia

INTRODUCTION^[1-4]

Influenza is an actual problematic viral infection. Annually, millions of world population get bad cold. The respiratory infection due to influenza seems to be a big basic problem in the developing tropical countries. Luckily, self limitation can be expected. However, emerging of new mutated influenza virus infection has become a big problem in medicine for a few years. Starting from bird flu, atypical influenza virus infection becomes the hot spot in tropical medicine. In early 2009, a bad news on an outbreak of a new variant influenza virus, swine flu, is occurred in Mexico. The distribution of the infection to other countries could be seen. Finally, World Health Organization noted that swine flu was a problem of the world and level V warning was proposed. Until present (20 May 2009), many countries, in both Western and Eastern hemispheres, get the cases of swine flu. In this paper, the author hereby discusses on the scenario of swine flu in Asia.

Details of emerging of swine flu

Emerging time: Early 2009, starting at Mexico in America. Focusing on present worldwide epidemiology, there are upto 40 countries with confirmed infected cases. This confirms for the wide distribution of the pathogen around the world.

Pathogen: The swine flu virus, an RNA virus, which is presently proved to be a variant of H1N1 influenza virus. The pathogenic virus is the result from the reassortment among classical swine flu virus, classical human H1N1 influenza virus and bird flu. The mutation rate of the swine flu virus is not high based on the following up of the reported sequence of the isolated pathogen from its first starting point till present. The observed rate is similar to that of classical H1N1 influenza virus infection and the rate is not as high as that of recent problematic bird flu virus.

Mode of transmission: This is a respiratory tract infection that transmitted by a human beings to another. The contaminated droplet from running nose, coughing and sneezing is the main source of pathogen. It should be noted that the velocity rate of movement of airborne droplet produced by coughing can be upto 160 km/hour and the movement can be as far as 5 meters. Although its name is swine flu, eating pork cannot transmit the disease.

Signs and symptoms: Since swine flu is a variant of classical influenza, the signs and symptoms of swine flu is similar to that of classical H1N1 influenza virus

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infection. The clinical manifestation of swine flu include high fever, chill, severe headache, malaise and myalgia. The common complication is pneumonia which might result in respiratory distress and death.

Diagnosis: The diagnosis of swine flu is hard because the signs and symptoms of swine flu might be mimicked by the classical influenza. The determination of the definite pathogen has to be based on the molecular diagnosis. The development of the new diagnostic tool is needed.

Mortality: The mortality rate of swine flu is not high, only about 1/1000. This rate is similar to that of classical H1N1 influenza virus infection.

Treatment: Focusing on treatment for influenza in general, there are two specific groups antiviral drugs; a) the first group of amantadine and rimantadine and b) the second group of oseltamivir and zanamivir. The first group is already described for drug resistance in case of swine flu. The second group is still in use but the closed surveillance on the drug resistance is needed. Indeed, the resistance of the second group is expected. Finding of new drugs is still the necessary thing for treatment of swine flu.

Vaccination: Vaccination for the swine flu is not presently available. The classical vaccine for classical influenza cannot be effective for prevention of swine flu. It is the topic of present research to find for new vaccine for swine flu.

Warning: After the report on the wide spreading of the infection from its origin in Mexico to USA, level IV warning was broadcasted and when the disease ran its way to Asia, the finalized level V warning was noted. Focusing on Asian scenario, most countries faced up with imported cases. However, the emerging report on the internal transmission in Japan becomes a big concerned that might push the degree of warning to level VI, the highest level.

How can swine flu come to Asia?

Actually swine flu has its origin in America, in Mexico. The first report of the world was from Mexico. However, few days after the epidemics of swine flu in Mexico, the cases were also detected in Asia. The big question is how swine flu can come to Asia. For sure, swine flu is a virus that cannot move or migrate by itself. Unlike the case of bird flu that birds can harbor the pathogen and carry it to dis-

tanced areas, swine flu is mainly transferred by human beings. The air transportation is believed to be the main route of disease travelling. This reflects the importance of travel medicine. For sure, there are many flights from Mexico and USA to many parts of Asia daily. The American, who might be infected by the swine flu virus, might travel to Asia on that day and carry the disease to Asia. Also, the Asian who came back from America might get infection and brought it to their hometown in Asia. This is the story on the swine flu outbreak in Asia.

Swine flu in Asia: the story^[1-4]

1. Israel

Israel is one of the countries that firstly got the case. However, since Israel is a country that lies on both Asia and Europe, not many reports quote that it is an actual Asian situation. It should also be noted that the emerging of disease in Israel brought serious concerns to many nearby countries. The pigs in many countries in that area are totally got rid off aiming at disease control.

2. Republic of Korea

This is the early evidence of infection in Asia. The problematic cases are clearly due to carrying of the disease by the local Korean who went home from travelling in the infectious areas.

3. China

There are up to 8 cases in China, including 1 case in Hong Kong Special Administrative Region. The disease can also be identified in the foreigners who went from infective areas to travel within China and carried the disease with them. The problem was early diagnosed and the strict control of disease could be seen. The quarantine of contacted and suspicious in a hotel was performed. Due to this strict protocol, the stopping of wide spreading of the disease could be derived.

4. Thailand

There are many rumors in Thailand for the infection before the actual identified cases. Due to the report from many local poor experienced medical scientists, local people became panic. The finalized identified cases were the two students who went back home from Mexico.

5. Malaysia

Imported cases of swine flu are also reported in Malaysia. However, the local infectious control unit

successfully controlled the disease.

6. India

An import case of swine flu is also reported in India but there is no report on progression of distribution from this indexed case.

7. Turkey

Imported cases of swine flu are also reported in Turkey. However, the local infectious control unit successfully controlled the disease.

8. Japan

Japan is one of the newest countries that got attack from swine flu. The case of Japan is totally different from the other Asian settings. It has the most number of infective cases, more than 100 cases. Internal infection, within the country, transmission can be seen. No success in disease control can be seen. The big wide spreading of disease in two cities, Kobe and Ozaka becomes the hot issue of Asia and this is the challenge for the WHO to upgrade the warning to level VI.

Questions and interesting observation for cases of swine flu in Asia

There are still many interesting questions on swine flu outbreak in Asia. From identified cases, it is interesting that the local Asia who got infections usually has mild clinical signs and symptoms and the result was not fatal. No death case is detected. This is totally different from the situation in Mexico. What can be the solution for this query? There might be some factors due to genetic background of local people that leads to this observation. There might also be the probable immunity to the disease among the Asia who took pork as their daily food and might get contact with some swine flu similar antigen in contaminated food, which is common in Asia. In addition, we can learn that there are many scenarios of dilemma in coping with disease. Killing pigs despite WHO's note that pig and pork are not the main source of infection is still seen. However, the strict control, which can bring some annoyance and inconvenience to the quarantine process, can effectively

fight with the emerging of disease, as seen in Hong Kong. The focus is also needed on the control of suspicious infected cases. The broadcasting of the news to the local population has to be well controlled since this might bring the panic to the local population. This is the problem that might be generated by the local poor experienced medical scientists in the field.

Also, it should be noted that although every country tries its best to control the disease and screen the passengers at the airports, there are still the late diagnosed cases that passed the migration process from the airports. This is the big challenge since the good transportation is expected to be the thing fastens the pandemic of the disease. Indeed, only screen for high body temperature on the passengers at the airport might not be sufficient. There are some reports on non febrile swine flu case. Indeed, we have ever face up with many new emerging infectious diseases, the strict control is the most preferable tool to cope with new diseases !

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