

Mini Review Article

PERINATAL SWINE FLU: A SHORT SUMMARY ON THE PRESENT EMERGING DISEASE

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Abstract

Swine flu is an emerging viral infection that is a present global public health problem. There are many thousands cases of swine flu in the present day. The infection among specific groups of population is interesting. In this specific brief review, the author hereby briefly summarizes and discusses on perinatal swine flu.

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INTRODUCTION

Swine flu is an emerging viral infection that is a present global public health problem (1).

There are many thousands cases of swine flu in the present day. This new infection can be seen around the world in the present day. This infection is a kind of variant of H1N1

influenza infection. The problematic virus was firstly detected in America in 2009 and this virus is the most widely studied virus in the present day. Due to the nature of respiratory virus, the transmission of this pathogenic virus is air borne transmission (1). Hence, the rapid spreading and difficulty in control of this infection can be expected (1).

As an influenza infection, the classical signs and symptoms include high fever and respiratory manifestations. In the severe cases, the lower respiratory tract infection can be expected and the respiratory distress can be seen. In the worst case, the patient will end up with death. The infection among specific groups of population is interesting. There are many concerns on this infection among immunocompromised host (2), elderly (3) and pregnant (4, 5, and 6). In this specific brief paper, the author hereby briefly summarizes and discusses on perinatal swine flu.

HOW CAN PERINATAL SWINE FLU OCCUR?

As an infection, there must be a triad of pathogen, host and environment for development of disease. The main route of infection is air borne infection. However, fetus in utero and neonate have a low chance to contact with contaminated environment in crowded area. Hence, there might be other additional contributing factors. The first consideration is the vertical transmission of this disease. Indeed, this is an important consideration in obstetrics. However, until present, there has been no confirmed case report on the vertical transmission of swine flu virus. Indeed, based on Nanomedicine principle, the swine flu virus is considered to be larger than placenta barrier, hence, it

should not pass from mother to fetus in utero (4).

Apart from transplacental transmission, there are also other possible routes for swine flu transmission to the newborn. The most concern route is the transmission due to breastfeeding. Indeed, similar to the case of placenta barrier, the swine flu virus is considered to be larger than nipple pore, hence, it should not pass from mother to newborn. However, if the mother has swine flu, she can directly transmit the virus to her child via air borne mode. It is suggested that the infected or suspicious infected mother should not perform breastfeeding to the newborn (7, 8).

Closed contact between mother and newborn is believed to be the main cause of perinatal swine flu at present. There are some reports on the swine flu during pregnancy but there are only a few reports on full term case. Of interest, recently, there was a case report from Thailand on the perinatal swine flu (9). As earlier noted, the closed contact between mother and newborn is believed to be the possible cause of this case study.

HOW TO MANAGE PERINATAL SWINE FLU?

There is no exact study to assess the actual prevalence of perinatal swine flu. However, based on the literature search, there are only a few reports on this topic. This might confirm the fact that the perinatal swine flu is hardly to be happened. However, the neonate is still presently a focused group for strict control for swine flu.

For management of perinatal swine flu, the standard recommendation of antiviral drug treatment can be applied (10). It is proved

that the standard antiviral drug, Oseltamivir, is safe for both term pregnant and women practicing breastfeeding (7). For the neonate, based on the case report (9), it is also proved that Oseltamivir is effective and safe.

For prevention, the new swine flu vaccine is available at present. This new vaccine is presently used for general population (11). For the pregnant, it is also recommended (11). However, for the neonate, there is still no report on effectiveness and safety of the vaccine.

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