Response to plague as a biological weapon

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Abstract

Background: Plague is an infectious disease that affects animals and humans. It is caused by the bacterium Yersinia pestis. This bacterium is found in rodents and their fleas and occurs in many areas of the world. The World Health Organization reports 1,000 to 3,000 cases of plague every year.

Material and method: this study is a review article based on the information and data, which is published in internet, journals and text books.

Results: The most common form of plague is Bubonic plague. This occurs when an infected flea bites a person or when materials contaminated with Y. pestis enter through a break in a person's skin. Septicemic plague occurs when plague bacteria multiply in the blood. It can be a complication of pneumonic or bubonic plague or it can occur by itself. Pneumonic plague occurs when Y. pestis infects the lungs. Common form of plague in bioterrorist attack is Pneumonic plague. This type of plague can spread from person to person through the air. Transmission can take place if someone breathes in aerosolized bacteria. Y. pestis is easily destroyed by sunlight and drying. Even so, when released into air, the bacterium will survive for up to one hour, although this could vary depending on conditions. With pneumonic plague, the first signs of illness are fever, headache, weakness, and rapidly developing pneumonia with shortness of breath, chest pain, cough, and sometimes bloody or watery sputum. The pneumonia progresses for 2 to 4 days and may cause respiratory failure and shock. Without early treatment, patients may die.

Conclusion: To reduce the chance of death, antibiotics must be given within 24 hours of first symptoms. Antibiotic treatment for 7 days will protect people who have had direct, close contact with infected patients. Wearing a close-fitting surgical mask also protects against infection. A plague vaccine is not currently available for use.

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