

Recent Updates Related to Pneumonic Plague

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DESCRIPTION

The bacteria *Yersinia pestis* causes pneumonic plague which is a serious lung infection. Fever, headache, shortness of breath, chest pain and coughing are some of the symptoms. It is one of three types of plague with septicemic plague and bubonic plague. The pneumonic form of plague can develop after a bubonic or septicemic plague infection. Breathing in airborne droplets from a person or animal can also cause infection with pneumonic plague. The area of infection differs between the plague types: pneumonic plague infects the lungs, bubonic plague infects the lymph nodes and septicemic plague infects the blood. Blood, sputum or lymph node fluids are examined for diagnosis. While vaccinations are being produced, they are not yet commercially available in most countries. Avoiding contact with infected rodents, people or cats is the best way to prevent infection. It is advised that the persons who have been infected must be segregated from the rest of the population. Antibiotics are used to treat pneumonic plague.

Rodents in Africa, America and Asia are infected with plague. Pneumonic plague is also more dangerous and rare than bubonic plague. In 2013, a total of 783 cases of all forms of plague were reported. Pneumonic plague is almost invariably lethal if untreated. The pneumonic form of the plague was primarily to blame for the Black Death which killed approximately 50 million people in the 1300's. Coughing is the most obvious symptom of pneumonic plague which is commonly accompanied by hemoptysis (coughing up the blood). Fever, headache, weakness and rapidly growing pneumonia with shortness of breath, chest pain, cough and often bloody or watery sputum are the initial indications of pneumonic plague. The pneumonia usually lasts two to four days and might result in respiratory failure and shock. Without prompt treatment, the patients will die and some within 36 hours.

Symptoms of pneumonic plague can include any of the following:

- Fever
- Headaches
- Nausea
- Breathing problems
- Pain in the chest
- Cough
- Sputum that is bloody or watery (saliva and discharge from respiratory passages)

Pneumonic plague can be produced in two ways: first is by inhaling plague bacteria that have been aerosolized or second is by septicemic plague spreading into lung tissue from the bloodstream. Pneumonic plague, unlike bubonic plague is not exclusively transmitted through vectors. It can also be transmitted from person to person. The dissection or handling of tainted animal tissue has resulted in cases of pneumonic plague. This is one of the epidemic varieties that were once known as the Black Death. Pneumonic plague is a highly contagious sickness that requires prompt treatment. To reduce the risk of death, antibiotics must be administered within 24 hours of onset of symptoms. The causative bacterium can be killed by streptomycin, gentamicin, tetracyclines and chloramphenicol. People who had direct, close contact with infected patients may benefit from antibiotic treatment for seven days. Untreated pneumonic plague has a near 100% mortality risk. Infection can also be avoided by using a surgical mask that fits perfectly.

The World Health Organization (WHO) has reported seven plague outbreaks since 2002 while some outbreaks may go unnoticed because they occur in isolated places. Between 1998 and 2009, almost 24,000 cases were reported in Africa, Asia, America and Eastern Europe with about 2,000 deaths. Africa accounts for 98 percent of all cases worldwide.

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