Pneumonia

Introduction:

Pneumonia is a common lung infection characterised by collection of pus and other fluids in the lung air sacs (alveoli). Lung air sacs are structures that help in the exchange of oxygen and carbon dioxide. Collection of pus in them makes breathing difficult. Pneumonia can be caused by many kinds of micro organisms (germs) including bacteria, viruses, fungi or parasites. When an infected individual coughs or sneezes, these organisms get into the air and breathing in of this air leads to contraction of the illness. It is thus a contagious disease. It is of various types occurring in individuals of all ages, affecting millions of people worldwide. The condition varies from mild to severe depending on the type of organism involved, age and the underlying health of the individual. Pneumonia can be categorized as: community-acquired, hospital-acquired and pneumonia occuring in Immunocompromised individuals (individuals with weakened immune system).

Causes:

Pneumonia is usually caused due to an infection with a bacteria, virus, fungi or parasite. In adults it is mostly caused by bacteria whereas in children and infants it is commonly due to viruses. Physical or chemical injury to the lungs can also result in the condition. Individuals who smoke, who are hospitalized and have long-term illness such as asthma, heart disease, cancer, HIV/AIDS, lung diseases or diabetes are at a higher risk of developing pneumonia. Hospital-acquired pneumonia is also common.

Signs and symptoms:

The onset of pneumonia can be sudden or slowly progressive. In most cases the symptoms of pneumonia mimics that of flu or other common lung infections such as bronchitis.

The main signs and symptoms of pneumonia are: cough that produces phlegm (sputum) which is either yellow, blood-stained or rust coloured, chest pain, difficulty in breathing, chills, fever, headache, excessive sweating, weight loss, loss of appetite, muscle pain, weakness and tiredness.

Diagnosis:

Diagnosis is based on a detailed history of the individual which involves the signs and symptoms, detailed personal and medical history. Certain laboratory investigations such as chest X-rays to confirm and determine the extent of infection as well as to rule out other chest infections. Sputum and blood tests are done to identify the specific organism responsible for the infection. Pulse oximetry is carried out to ascertain the flow of oxygen through the blood thus, determining the functionality of the lungs.

Treatment:

Treatment for pneumonia usually depends on the type of pneumonia, bacterial or viral. Viral pneumonia does not require antibiotics instead antiviral medications are prescribed. The individual usually takes one to three weeks to recover.

Individuals with bacterial pneumonia are usually treated using antibiotics to cure the infection. Medications are given to relieve pain, fever and cough along with adequate rest, healthy diet and plenty of fluids to improve the general health. Hospitalization and oxygen therapy are advised in severe conditions. Treatment of the underlying medical problem is necessary if present with periodic follow-up visits.

Complications:

Pneumonia can be fully cured without complications in most of the cases. Complications usually occur in individuals with other debilitating diseases such as lung infections, heart ailments, etc. The complications include spread of the infection to the blood and other organs, empyema or lung abscess (conditions resulting from collection of pus in and around the lungs), accumulation of fluid in the lungs, acute respiratory distress (difficulty in breathing due to spreading of the infection in the lungs).

Prevention:

Pneumonia can be prevented by maintaining hygiene such as washing hands frequently and thoroughly after blowing nose, going to the bathroom and before eating, quitting smoking as smoking damages the lungs, staying away from individuals who are sick, wearing a mask when cleaning dusty areas, getting vaccinated against pneumonia such as the flu shot.

More Information:

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