

PNEUMONIA DISEASE, CLASSIFICATION, PATHOGENESIS AND TREATMENT OF THE DISEASE

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Annotation: Pneumonia is an inflammation of the lung tissue, usually caused by an infection, mainly accompanied by damage to the alveoli (in which the development of inflammatory exudation). This article provides information on the causes, classification, pathogenesis and treatment of pneumonia.

Key words: Pneumonia, Zotiljam, pneumococcus, streptococcus, staphylococcus, intoxication, Focal, Segmental, Krupoz pneumonia, Viral genesis, Aspergillus, Mucor.

Pneumonia (ancient Greek pneumonia - "lung disease"), Zotiljam - pneumonia, an infectious disease of the lungs, an independent disease or a complication of other diseases. Pneumococci are caused by various bacteria (pneumococcus, streptococcus, staphylococci) and viruses. The onset and development of the disease are caused by severe colds, physical and mental exhaustion, intoxication and other factors that weaken the body's ability to fight disease, resulting in acute and chronic microbial infections of the upper respiratory tract or pneumonia (pneumonia). a whole part is affected) and focal bronchopneumonia. According to the prevalence of pneumonia, pneumonia can be classified as follows:

- Focal (focal) - a small part of the lungs is damaged (bronchopneumonia - respiratory tract, bronchi);
- Segmental - extends to one or more segments of the lung;
- Lokal - affects the lungs. The classic example of lokal pneumonia - croupous pneumonia - is inflammation of the alveoli and adjacent pleura;
- Merge - the consolidation of small foci and the expansion of the area of damage;
- Total — agar butun o'pka bo'ylab tarqalsa.

Crupose pneumonia is caused by pneumococci. In addition to germs, pneumonia can only be caused by certain factors that make the body susceptible to disease (such as colds). Therefore, croupous pneumonia is more common in winter. People who are addicted to alcohol (alcoholics) are more prone to Zotiljam. Crupose pneumonia usually begins suddenly: the temperature rises to 39.5-40 °, the patient trembles, coughs frequently, has pain in the hips, chest, and pain when breathing, coughing, and sneezing. This is because the pleura, which cover the inflamed part of the lungs, may also be inflamed. The patient often breathes on the surface (sighs), redness of the cheeks. Herpes around the labia, nasal cavities, acute

cardiovascular failure, worsening of the patient's condition. In infants, especially those with frail, premature births, rickets, and anemia, and malnutrition, seizures can be very serious and often lead to complications if not treated promptly.

- ✓ Depending on the origin of pneumonia can be divided into the following forms.
- ✓ Infection - develops under the influence of pneumococcus, klebsiella, staphylococcus, streptococcus and other bacteria;
- ✓ Has a viral genesis - most often a herpetic form of Epstein-Barr virus or cytomegalovirus infection;
- ✓ Has a fungal genesis - the causative agent is a fungus (*Aspergillus*, *Mucor*,) yeast (*Candida*), endemic dimorphic fungi (*Blastomyces*, *Coccidioides*, *Histoplasma*), pneumocysts (*Pneumocystis*) possible;
- ✓ Mixed type - produces two or more types of pathogens at the same time.

Until the discovery of sulfanilamide drugs and antibiotics, sepsis (especially in children and the elderly) was severe and often fatal. With the advent of modern therapies, the disease did not last long and the patient recovered quickly. Death from Zotiljam is almost always the result of late treatment by a doctor.

Pathogenesis

In pneumonia, the alveoli of the lungs become filled with fluid, which prevents oxygen from entering the blood vessels. The most common route of entry of microorganisms into the lung tissue is the bronchogenic route, which includes aspiration, ingestion of microbes from the environment by inhalation, transmission of pathogenic flora from the upper respiratory tract (nose, throat) to the lower part. passage, medical treatments - bronchoscopy, tracheal intubation, artificial ventilation of the lungs, treatment with inhaled drugs, etc.

Hematogenous (blood) transmission of infection is less common, mainly in fetal infection, septic processes, and intravenous drug use. Lymphogenic infection is rarely reported.

After infection, the infectious agent settles in the epithelium of the respiratory bronchioles and begins to multiply, resulting in the development of various forms (from mild catarrhal form to necrotic form) of acute bronchitis or bronchiolitis. The spread of microorganisms outside the bronchioles can lead to inflammation of the lung tissue or pneumonia. Atelectasis foci occur due to impaired bronchial permeability. Using the coughing and sneezing reflex, the body tries to restore bronchial permeability, but as a result, the infection spreads to healthy tissues and new foci of pneumonia appear.

The disease can lead to oxygen deficiency, respiratory failure, and in severe cases, heart failure. Segments II, VI, X of the right lung and VI, VIII, IX, X of the left lung are most often affected. Local lymph nodes - bronchopulmonary, paratracheal, and bifurcation nodes are also involved in this process.

Treatment: If the disease is severe, the patient is hospitalized. Proper care of the patient, as well as the proper use of antibiotics, is important. Cool, fresh air improves sleep and respiration, so it is important to ventilate the patient's bedroom frequently. Drinks (tea, fruit juice), liquid food (soup, scrambled eggs, whipped cream, milk, butter, yogurt, kefir, sour cream, etc.) are often served. When the patient sweats, wipe with a dry towel, vodka or cologne with equal amounts of water. It is necessary to watch for diarrhea and urination. When the cardiovascular system is not working well, drugs that increase its activity are prescribed; oxygen is inhaled, and so on. Mustard is added to the back, cardiovascular drugs (eg, corglucon, strophanthin) and expectorants are recommended, and others. If convulsions occur, the patient's head should be placed higher. The patient should follow a hygienic regimen, walk in the open air, and engage in therapeutic gymnastics. Occasionally pleural puncture and bronchoscopy are performed. Physiotherapy is also often prescribed: ultraviolet radiation, vibration massage, physiotherapy exercises, paraffin, and ozokerite.

In cases where the pathogen is unknown, protected penicillins and cephalosporins (i.e., broad-spectrum antibiotics) and macrolides are used as antibiotics. Carbapenems (thienam, meropenem), respiratory fluoroquinolones can also be used. If the therapy is ineffective, the antibiotic is switched to another type. The criterion for successful treatment is the normalization of body temperature on the third day from the start of antibiotic use, as well as objective data of the examination and chest X-ray.

Prevention should focus on improving the general condition of the body (exercise, physical training, etc.), quitting bad habits (smoking, drinking alcohol), eliminating sources of infection and improving living conditions.

About coronavirus pneumonia and its peculiarities

- How is the development and treatment of pneumonia in COVID-19 different from conventional pneumonia?
- New coronavirus pneumonia is a type of viral inflammation of the lungs. We already know about viral pneumonia, but we are not used to dealing with it to such an extent. This greatly complicates the treatment process. The changes that cause coronavirus pneumonia can occur, for example, in the flu, but in COVID-19 they develop more and more differently.

Before we talk about the differences, it's important to remember what the lungs are. It consists of a system of air ducts that terminate in the alveoli. These alveoli are joined into a single structure by carcass-interstitial. It is made up of connective tissue. Blood and lymph flow through the interstitium.

In most cases, we have to deal with infectious or bacterial pneumonia. It is caused by bacteria inside the alveoli that cause inflammation. The air in the affected areas of the respiratory tract is replaced by inflammatory fluid. The carcass - the interstitium - is almost undamaged, and the walls of the arteries are dense.

Symptoms of pneumonia include fever and whooping cough. The onset of cough is due to the fact that the inflammatory fluid is inside the alveoli and exits through the bronchi. Mucolytics are prescribed to relieve cough (drugs that dilute sputum without increasing its volume and relieve sputum from the lungs). The rise in temperature is due to bacterial inflammation. In this way, our body destroys the pathogens - bacteria. When the "enemy" is destroyed, the situation improves and the person recovers. Because bacteria cause pneumonia, antibiotics are the primary treatment for pneumonia. When necessary, drip medications are used in a hospital setting, not at home.

In viral pneumonia (new coronavirus pneumonia is a type of it) the walls of the blood vessels are damaged. Their density decreases. The liquid part of the blood comes out of the veins and causes them to swell. Bacteria are added later, but this is not always the case.

In coronavirus pneumonia, an inadequately strong immune response to the virus causes high fever and inflammation. The cough is dry because the fluid is in the interstitium, which has no exit to the bronchi. In this case, expectorants are rarely effective, and may be effective only when a bacterial infection is present or when chronic bronchitis is present.

- ✓ The virus enters the body through droplets. During contact, we breathe in it, and it stays in the upper respiratory tract for a while, and in some cases it descends later. What's this all about?
- ✓ First of all, the state of the human immune system. The amount of secretory immunoglobulin A (IgA) on the surface of the nasal mucosa. Background and satellite conditions of the body, the peculiarities of metabolism. Infected virus strains also play a role, depending on the dose and how aggressive it is.
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Coronavirus pneumonia develops without symptoms. How do you know when an inflammation of the lungs has started?

- ✓ The usual course of COVID infection has several characteristic stages. In the first week, there are acute respiratory viral infections (ARIs), which are less likely to be severe. There may be days when you feel almost healthy.

From the first day of fever, the first days of illness begin to count. Sometimes it is difficult to determine, because it may not rise as much as 37.2 - 37.5. In such cases, lowering the temperature is not recommended - it is a natural protective reaction of the organism. It is best to increase your fluid intake.

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