

Main epidemiological indicators of tuberculosis in Surkhandarya region (in 9 months 2021)

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Abstract: This article discusses tuberculosis, its origin, history of development, epidemiology, treatment, as well as the analysis of the epidemiological situation in Surkhandarya region for 9 months of 2021.

Keywords: Mycobacterium, tuberculosis, etiology, Mantoux test, phthisiologist, latent.

Tuberculosis or tuberculosis is an infectious disease of bacterial etiology. The disease is not only medical but also social: the most susceptible to TB are people with reduced immunity, malnutrition, poor hygiene and poor living conditions. The quality of human life affects the development of the disease. However, the entire population, regardless of age and gender, is at risk of tuberculosis.

The high mortality rate (3 million people per year) and the prevalence of the disease are influenced not only by social factors, but also by the long (asymptomatic) period of the concussion. This period is the most favorable time for the treatment of tuberculosis and the organism is evaluated by the Mantoux test reaction to determine the presence of infection.

The disease develops when the human body is infected with the bacterium Mycobacterium or Cox's bacillus. These microorganisms survive at low temperatures, are resistant to environmental influences and high temperatures.

Cox's wand is not considered a highly contagious infection, but an infected carrier can spread the bacteria to the environment, and a healthy person is very unlikely to become infected with these bacteria. In most cases, a patient with tuberculosis (tuberculosis patient) is not required to be hospitalized in the inactive form of the disease, and their actions and social activities are not limited. Regular daily contact with a person with TB, for example in a family setting, not only to take care of the patient's health, but also to maintain good hygiene at home, strengthen the

immunity of other family members and detect the disease early for (if infected) it is often recommended to determine the reaction of the organism to the Mantoux probe.

The main route of transmission of TB is through the airborne droplets of Cox's rod into the respiratory tract. In rare cases, cases of daily contact and transplacental transmission are reported. The bacterium enters the body through the respiratory tract, then passes into the mucous membranes of the bronchi and alveoli, and spreads throughout the body through the blood.

DEVELOPMENT OF TB DISEASE: SYMPTOMS AND SYMPTOMS OF DIFFERENT STAGES OF DISEASE

Tuberculosis is usually gradual. For a very long time, pathogenic bacteria do not manifest themselves in the body, often developing and multiplying in the lung tissue.

There are no symptoms at the onset of TB. In the first stage of the disease, mainly pathogens develop and multiply, and no clinical signs appear. The initial stage is followed by a latent or latent period of the disease, in which the following symptoms can be observed:

- General deterioration of health;
- Fatigue, weakness, nervousness;
- Unwanted weight loss;
- Excessive sweating in the evening.

Cough, high body temperature is not typical for the first stage of the disease, such symptoms are observed in extensive lesions of the lung tissue. As the initial stages of the disease are not significant, the diagnosis is made only with the help of tuberculosis samples (Diaskin-test, Mantoux test, etc.) or PCR analysis of blood.

The next stage of the disease is characterized by a latent (latent) stage - tuberculosis in the "closed" form. At this stage, the pathogens are not released into the environment and the disease develops slowly and is almost harmless to health due to the body's resistance.

The latent form of the disease is dangerous with the possibility of transition to the stage of active disease, it not only poses a threat to others, but also has a very negative impact on the body.

The active form of the disease progresses to the secondary stage, the pathogenic bacteria multiply rapidly and spread to other parts of the body. There are serious injuries and illnesses that can be fatal.

ACTIVE STAGE OF TB: SYMPTOMS AND MANIFESTATION

Symptoms of tuberculosis in the acute phase of the disease:

Prolonged (more than three weeks) wet cough with sputum secretion;

Blood in sputum;

FEVER IN SUBFEBRIL (37-38 ° C);

Weight loss;

Increased fatigue, malaise, weakness, restlessness, decreased appetite, impaired ability to work, and other signs of physical intoxication.

The cough is moist, pronounced, frequent attacks, with a characteristic intensification in the morning. At this stage of the disease, smokers typically spread this symptom to "smoker cough," a sign of chronic bronchitis in nicotine-dependent patients.

At more aggressive rates of the disease, the clinical picture may be supplemented by the following symptoms:

Fever between February (body temperature 38-39 ° C);

Pain in the shoulder area and abdomen;

Pain during coughing;

The cough becomes dry and the breathing becomes difficult.

The symptoms of tuberculosis are similar to the clinical manifestations of other respiratory diseases of viral and bacterial etiology. Differentiation of the diagnosis is made only by a specialist.

EXTRAORDINARY SYMPTOMS OF THE DISEASE

Cox's wand can not only affect lung tissue, but also multiply in other organs and cause inflammation. With this localization, the type of extrapulmonary disease is discussed. Tuberculosis of internal organs and systems is usually detected by eliminating other diseases and pathologies. The clinical presentation depends on the severity of the process and the location of the organ or tissue affected by the bacterium.

Tuberculosis in the brain is manifested by an increase in body temperature, disturbances in the nervous system and sleep, excessive nervousness, contraction and enlargement of the muscles of the neck and neck. Characteristic pain syndrome in the lumbar region is observed when stretching the legs, tilting the back and head forward. The disease progresses slowly - at risk - in preschool children, people with DIABETES and HIV.

Tuberculosis of the digestive system (tuberculosis) - is manifested by symptoms such as regular disorders of defecation (urination), abdominal distention, pain in the intestinal tract, signs of hemorrhagic bleeding (presence of blood in the stool), a rise in body temperature to 40°C .

Tuberculosis of the joints and bones (tuberculosis) - manifested by pain in the affected areas, limited mobility of the joints. Diagnosis is difficult because the symptoms are similar to other diseases of the musculoskeletal system.

Tuberculosis of the genitourinary system (urogenital tuberculosis) - usually found in the kidneys and / or pelvic organs. The clinical picture is frequent urination, including blood in the urine and fever.

In patients with tuberculosis of the skin, it is expressed in the form of rashes that spread throughout the skin, the rash resembles a nodule on palpation.

Other symptoms can occur when different organs are injured. A pathogen that enters the bloodstream can spread to any part of the body and injure almost any organ, tissue, or organ system. In such cases, the clinical signs of the disease do not differ from other inflammatory processes of etiology. The prognosis of treatment of extrapulmonary forms of tuberculosis depends on the time of diagnosis, the localization of the pathological process, its stage, the degree of organ damage, the general health of the patient.

DIAGNOSIS METHODS

The diagnosis is made on the basis of tests that allow to determine the cause of the disease in the body. Diagnostic measures begin with the collection of medical history and analysis of patient complaints, study of medical history. A series of tests are performed to confirm or deny the diagnosis:

Mantoux reaction or Pirke test analysis is the most common research method to determine the presence of tuberculosis. Tuberculin is injected under or under the skin. A tuberculin test allows an assessment of contact with Cox's rod, but this does not confirm the diagnosis. This diagnostic method has been criticized by tuberculosis experts and other experts because it may show contact with other types of mycobacteria. In addition, diagnosis by this method can lead to incorrect results after vaccination with BCG (tuberculosis vaccine). The Mantoux test is also used to detect ALLERGICAL REACTIONS to key components before vaccination;

The diaskin test is also part of skin research and aims to improve the diagnosis of tuberculosis by the mantle reaction method. This is a specific test that only reacts to *Mycobacterium tuberculosis*;

Quantiferon test, or IFA-enzyme-linked immunosorbent assay, is recommended for people with tuberculin allergies. The study is performed on biological materials (blood) and is considered the most reliable test (only 2% incorrect answer, Mantoux test 30%). Recommended for the detection of latent and extrapulmonary forms of the disease;

Microscopic analysis is performed to look for a pathogen in the sputum secreted from the cough. If *Mycobacterium* is detected under a microscope, artificial bacteria can be planted and seated;

PCR or polymerase chain reaction is the most accurate research method available today to detect the presence of mycobacterial DNA in biological fluids;

Histological examination of biopsy tissue is used to identify bone tissue tuberculosis.

X-rays and fluorography show the presence of foci of inflammation in the lung tissue.

TREATMENT OF TUBERCULOSIS

The probability of recovery from this disease is calculated based on the stage of the disease, the area of injury, the general health of the patient. Diagnosis in the early stages allows to determine the effective course of treatment of the disease, which contributes to the complete cure of the patient.

Treatment is long-term, comprehensive, based on treatment with antibacterial drugs, anti-tuberculosis drugs, immunomodulators, immunostimulants, probiotics and vitamins. A mandatory part of the course of treatment is diet and exercise therapy.

Treatment of the patient in the active phase is carried out in the tuberculosis dispensary, to reduce the likelihood of transmission to others. The length of stay at the dispensary depends on the type and stage of the process and can range from a few months to a year or more. Arbitrary treatment and attempts to stop the disease can often lead to recurrence or development of the disease, the development of serious complications, death.

PREVENTIVE MEASURES

The development of the disease depends on the level of immunity, so the main prevention is to maintain a healthy lifestyle.

Immunization of children, regular testing and testing for the disease in the early stages of the disease also play an important role.

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