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SYNDROMES IN TUBERCULOSIS

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Abstract: Tuberculosis is an infectious disease caused by the mycobacterium Mycobacterium tuberculosis , which can affect various organs and systems of the human body. The disease can manifest itself in many clinical syndromes, which depend on the localization of the infection and its stage. This article discusses the main syndromes of tuberculosis, their characteristic clinical manifestations, as well as approaches to diagnosis and treatment. Given the importance of timely recognition and treatment of tuberculosis, we will educate the reader on key aspects associated with this disease.
Key words: tuberculosis, diagnostics, tuberculosis syndromes.

Introduction. Tuberculosis remains one of the leading causes of morbidity and mortality in many countries worldwide, particularly in regions with high infection rates. This disease has significant social and economic consequences. It is important to understand the diversity of syndromes that can result from tuberculosis infection in order to improve diagnosis and develop effective treatment strategies. Knowledge of typical and atypical manifestations of tuberculosis will help physicians in clinical practice and patients to better understand and describe their symptoms.

Pathogenesis of tuberculosis. Mycobacterium Mycobacterium tuberculosis enters the body through the respiratory tract, entering the alveoli of the lungs, where it can cause an inflammatory reaction. The body's immune response to infection can lead to both control of the spread of mycobacteria and their progression, which leads to serious complications. Depending on the state of the patient's immune system, as well as the virulence of the mycobacterium strain, the patient may develop various clinical syndromes. Understanding this mechanism is important for risk assessment and prognosis.

Main syndromes of tuberculosis

- Pulmonary syndromes

Pulmonary tuberculosis is the most common form of tuberculosis and is often found in adults. The main clinical manifestations of this form of the disease include:

• Cough, which is usually long-lasting and may be accompanied by the release of sputum, sometimes with an admixture of blood. This is the result of an inflammatory process in the lungs.

• Shortness of breath, which occurs due to deterioration of pulmonary ventilation and progression of pathological processes.

• Chest pain, usually associated with pleurisy or inflammation of surrounding tissues.

• General malaise includes symptoms such as fever, night sweats, fatigue and weight loss, which indicate the body's systemic response to infection.

- Extrapulmonary syndromes

Tuberculosis can affect many extrathoracic organs, causing specific syndromes such as:

• Tuberculous meningitis, which presents with severe headache, stiff neck, impaired consciousness, and even coma in severe cases. This life-threatening condition requires immediate medical attention.

• Tuberculosis of the kidneys, which can manifest itself as lower back pain, hematuria (blood in the urine), and also the possible formation of abscesses, which leads to additional disabling consequences.

• Tuberculosis of the bones and joints causes localized pain, swelling and limited movement, which can significantly affect the patient's quality of life.

- Syndromes in tuberculosis of the skin

Skin manifestations of tuberculosis also have their own characteristics:
• Tuberculous lymphadenitis - enlargement of the lymph nodes may be accompanied by redness and pain in the affected area, which indicates an active inflammatory process.
• Tuberculosis of the skin is characterized by the formation of nodules, ulcers and caseous lesions, which may be associated with a systemic disease indicating a widespread infectious process.
Diagnosis of tuberculosis syndromes. Clinical diagnosis of tuberculosis requires a comprehensive approach, including:
• History and physical examination, which allows the doctor to evaluate the presence of symptoms and possible risk factors.
• Microbiological testing involves identifying Mycobacterium tuberculosis in sputum, urine or other biological materials, which is the basis for confirming the diagnosis.
• Disease mapping using chest X-ray or CT scan to assess pulmonary changes and identify possible complications.
• PCR testing allows for rapid diagnostics, which is especially important during an epidemic.
Treatment of tuberculosis syndromes. Treatment of tuberculosis is based on anti-tuberculosis chemotherapy, which is effective against various strains of Mycobacterium tuberculosis . First-line drugs include:
• Isoniazid - effective against active infection and well tolerated by most patients.
• Rifampicin – has a powerful bactericidal effect and is important in combination with other drugs.
• Pyridine – helps reduce bacterial load and speed up recovery.
• Ethionamide is used as needed, especially in cases of persistent infection.
Symptomatic treatment should be individualized, taking into account the patient's health condition and the presence of concomitant diseases. The duration of the course of treatment is at least 6-12 months, which is important for complete recovery. In cases of multiple or persistent forms of the disease, secondary drugs and combination therapy regimens may be required.
Prognosis and prevention. The prognosis for tuberculosis largely depends on early diagnosis and adherence to treatment. If all medical recommendations are followed, most patients can fully recover and return to normal life. Preventive measures play a key role in the fight against tuberculosis and include BCG vaccination, regular screening, and early diagnosis. It is important to inform the population about the principles of prevention and signs of the disease in order to minimize the spread of infection.
Conclusion. The syndromes that occur with tuberculosis are diverse and can affect various organs and tissues, which makes this disease especially difficult to diagnose and treat. Understanding the clinical picture and specificity of syndromes allows us to improve diagnostics, choose optimal treatment methods and, thus, significantly reduce morbidity and mortality from this dangerous disease. Effective work in the field of prevention and education of the population can be an important step in the fight against tuberculosis.

Bibliography:

1. Petrov A. I. Tuberculosis: clinical picture, diagnostics, treatment. Moscow: Medicine, 2020.
2. Smirnova N. V., Ivanov I. I. Syndromes in tuberculosis. Journal of Infectious Diseases. 2021; 56(4): 267-274.
3. World Health Organization. Global tuberculosis report 2022. Geneva: WHO.
4. World Health Organization. Global tuberculosis report 2022. WHO; 2022.
5 . Bastian, T. et al. "Molecular techniques for the diagnosis of tuberculosis". Journal of Microbiology. 2023; 61(2): 157-170.
6. Pai , M., Zwerling , A., and M.M. "The role of interferon-gamma release assays in the diagnosis of tuberculosis." Clinical Infectious Diseases. 2023; 76(12): 1820-1827.

7 . Ruesch , A. et al. "The importance of culture-based methods in the detection of Mycobacterium tuberculosis." Clinical Microbiology Reviews. 2022; 35(3): e00132-20.
8. O'Brien, K. "Diagnostic approaches for tuberculosis: A systematic review." Infectious Diseases Journal. 2023; 10(4): 250-267.