

TUBERCULOSIS SPONDILITIS AND ITS ASPIRATION ON THE MYOCARD IN THE INTENSIVE PHASE OF CHEMOTHERAPY

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Tayanch soʻzlar: sil spondiliti, bemor, miokardiodistrofiya, elektrokardiografiya.

Ключевые слова: туберкулёзный спондилит, пациент, миокардиодистрофия, электрокардиография.

In the modern world, the epidemic of human immunodeficiency virus (HIV) and the spread of resistant forms of tuberculosis infection contribute to the increase in extrapulmonary forms of tuberculosis [1, 9]. To study the causes of tuberculous spondylitis myocardiopathy development in the intensive phase of treatment and to determine treatment methods to optimize the treatment of the underlying disease, a retrospective analysis of the medical history of patients at the Samarkand Regional Center for Phthisiology and Pulmonology was conducted, as well as an analysis of a comprehensive examination with comparative electrocardiography. The development of myocardiopathy in patients with tuberculous spondylitis develops due to the toxic-allergic effects of chemopreparations, the presence of epidural and paravertebral fluid abscesses, referred to as cold abscesses. Timely diagnosis followed by metabolic treatment yielded good results in the comprehensive treatment of tuberculous spondylitis.

SIL SPONDILITI VA UNING KIMYOTERAPIYANING JADAL FAZASIDA MIOKARDGA TA'SIRI

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Hozirgi dunyoda odam immunitet tanqisligi virusi (OITV) epidemiyasi va sil infeksiyasining chidamli shakllarining tarqalishi silning ekstrapulmonal shakllarining ko'payishiga sabab bo'lmoqda [1, 9]. Davolashning jadal bosqichida sil spondilitida miokardiopatiya rivojlanishining sabablarini o'rganish, asosiy kasallikni davolashni optimallashtirish maqsadida bartaraf etish usullarini aniqlash. Samarqand viloyati ftiziatriya va pulmonologiya markazi bemorlarining kasallik tarixi retrospektiv tahlil qilindi. Kompleks tekshiruv tahlili o'tkazilib, qiyosiy elektrokardiografiya amalga oshirildi. Sil spondiliti bilan og'rigan bemorlarda miokardiopatiyaning rivojlanishi kimyoviy dorilarning toksik-allergik ta'siri, sovuq abscess deb ataladigan epidural va paravertebral oqma abscesslarning mavjudligi bilan bog'liq. O'z vaqtida o'tkazilgan diagnostika va keyinchalik metaboliklar bilan davolash sil spondilitini kompleks davolashda yaxshi natija berdi.

ТУБЕРКУЛЁЗНЫЙ СПОНДИЛИТ И ЕГО ОСЛОЖНЕНИЕ НА МИОКАРД В ИНТЕНСИВНОЙ ФАЗЕ ХИМИОТЕРАПИИ

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В современном мире эпидемия вируса иммунодефицита человека (ВИЧ) и распространение устойчивых форм туберкулёзной инфекции способствуют увеличению экстрапульмональных форм туберкулёза [1, 9]. Цель: изучить причины развития миокардиопатии туберкулёзного спондилита в интенсивной фазе лечения, определить методы устранения с целью оптимизации лечения основного заболевания. Произведён ретроспективный анализ истории болезни пациентов областного центра Фтизиатрии и пульмонологии Самаркандской области. Проведён анализ комплексного обследования, со сравнительной электрокардиографией. Развитие миокардиопатии у больных с туберкулёзным спондилитом, обусловлено токсико-аллергическим действием химиопрепаратов, наличие эпидуральных и паравертебральных натёчных абсцессов, именуемых как холодный абсцесс. Проведённая своевременная диагностика с последующим лечением метаболитами, дали хороший результат в комплексном лечении туберкулёзного спондилита.

Relevance. The peculiarities of the course of extrapulmonary forms of tuberculosis and the complexity of identifying the pathogen due to its small number in the pathological material require higher-technological laboratory studies. In cases of bone joint localization of a specific process, surgical intervention is necessary, with surgical material collected for cytology [7, 8].

Spinal tuberculosis is more common compared to other forms of extrapulmonary tuberculosis [4, 6]. In the modern world, the epidemic of human immunodeficiency virus (HIV) and the spread of resistant forms of tuberculosis infection contribute to the increase of extrapulmonary forms of tuberculosis [1, 9]. This, in turn, led to a pathomorphism of the clinical manifestation of the disease, a longer course, a change in prognosis, and the appearance of rare lesions of organs and systems [3]. If a general examination is required when diagnosing specific spondylitis, to determine the degree of spinal deformation and the manifestation of the degree of neurological pathology, it is necessary to conduct standard radiological, spectral bacteriological, histological, and cytological studies [9]. However, even the use of high-tech methods in the diagnosis of tubercu-

lous spondylitis in 50-55% of cases is diagnosed in the late stages of the disease, and generalized and complicated course of the process occurs in 45-50% of adult patients [2, 5]. All these factors: late diagnosis, lack of a sensitive method in the early stages of the disease, unfavorable social conditions in families contribute to the toxic damage of parenchymal organs.

Purpose of the research. To study the causes of developing myocardial pathogenesis of tuberculous spondylitis in the intensive phase of treatment, to determine methods for eliminating the underlying disease and to optimize treatment.

Materials and methods of research. The study was conducted at the regional center of phthysiology and pulmonology of the Samarkand region, in the surgical department for extrapulmonary tuberculosis. The study covered 57 patients with tuberculous spondylitis who were treated in the first half of 2022. An analysis of a comprehensive examination with comparative electrocardiography was conducted. Due to the lack of more sensitive methods for diagnosing myocardial function (echocardiography, cardiac doppler, veloergometry, electrocardiography with daily monitoring) and limited mobility of patients with tuberculous spondylitis, the study was limited to electrocardiographic data.

Results. The age range of patients ranged from 20 to 78 years, with an average age of 49. By place of residence: 35 (61.4%) from rural areas, 22 (38.6%) from urban areas. Gender differences of patients: women - 24 (42.1%), men - 33 (57.9%). By localization: cervical spine - in 2 (3.5%), cervicothoracic spine - in 4 (7%), thoracic spine - in 21 (36.8%), thoracolumbar spine - in 12 (21%), lumbar spine was affected in 14 (24.6%), lumbar-sacral spine - in 4 (7%). All patients had neurological disorders and various complications in the form of paravertebral and epidural abscesses.

Patients' complaints characteristic of myocardial dystrophy, as a general weakness, fatigue, shortness of breath during physical exertion, - could not be determined due to the main requirements in the active phase of treatment with strict immobilization. Mainly, patients had no changes upon admission on electrocardiography, mild tachycardia was detected in 8 (14%) patients, intraventricular conduction disorders in 6 (10.5%), metabolic changes in 5 (8.8%) patients. Electrocardiography without pathological changes was performed in 38 (66.7%).

Percussion: no changes in relative and absolute cardiac dullness were detected. Auscultation revealed a weakening of the apical impulse and heart sounds.

When patients were connected to basic chemotherapy against the background of immobilization at the beginning of the second week, minimal symptoms appeared in the form of complaints about heart palpitations and decreased appetite. The majority of patients have complaints in the form of anxiety and worry about upcoming surgical interventions on the spine. Blood pressure increased in 4 (9.3%) patients by 10-20 mm Hg, without pathological deviations on electrocardiography, who had no history of hypertension. Dynamic electrocardiography on days 10-12 of treatment revealed a sharp inversion of the T wave in all chest leads in 8 (18.6%). In 3 (7%) cases, T wave inversion was combined with a decrease in the S-T interval from the iso-line by $0.5 > 1.5$ mm, in 5 (11.6%) cases, various types of ventricular extrasystoles appeared, and in another 5 (11.6%) cases, blockage of the right bundle of His bundles occurred. Signs of intraventricular conduction disorders were observed in 4 (9.3%) patients.

Discussion. Myocardial dystrophy in patients with specific spondylitis is not an inflammatory lesion; it is a complex of pathological conditions caused by tuberculous intoxication, disrupting cardiac muscle metabolism. Prolonged torpid course of specific spinal lesions with general intoxication, insufficient nutrition (patients' social status), and vitamin deficiency leads to metabolic disorders that the heart muscle is sensitive to. In the pathogenesis of the disease, a huge role belongs to changes in biochemical processes in the myocardium at the cellular level, with further changes in microstructures and thinning of myocytes, which lead to disruption of all functions of muscle fibers (conductivity, excitability, contractility, automatism).

The transition of the subclinical phase of myocardial dystrophy in patients with tuberculous spondylitis is caused by a number of factors: the toxic-allergic effect of chemopreparations on parenchymal organs, prolonged immobilization of the patient as one of the treatment conditions, chronic polydeficiency anemia, the presence of epidural and paravertebral fluid abscesses, referred to as cold abscesses. Good results were observed with timely treatment of MCD with medications that improve metabolism in the heart muscle.

Conclusions. Eliminating the causes of the disease, reducing energy deficit, helps to restore the function of the myocardium completely or partially depending on the degree and area of damage. Structures of the cardiac conduction system are also characteristic of myocardial dystrophy. Timely diagnosis followed by metabolic treatment eliminated negative biochemical changes in the myocardium, which was confirmed by the general condition of patients and electrocardiography.

In the complex treatment of tuberculous spondylitis, to achieve a good effect, immobilization with etiological therapy with anti-tuberculosis drugs for a relatively long time and the use of radical surgical interventions are necessary.

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