

THE EFFECTIVENESS OF RETROSTERNAL LYMPHOTROPIC THERAPY IN  
ADOLESCENTS WITH TUBERCULOSIS

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**Annotation.** Lymphotropic therapy was performed on 32 adolescents with various forms of tuberculosis. During combined chemotherapy, one of the anti-tuberculosis drugs (tubazid, kanamycin) was injected lymphotropically into the pretracheal subcutaneous tissue or into the axillary area on the affected side. Heparin served as a lymphostimulator. Lymphotropic therapy lasted from 1 to 3 months. In patients receiving lymphotropic therapy, the reaction was faster.

**Keywords:** tuberculosis, preoperative preparation, lymphotropic therapy, bilateral pulmonary tuberculosis.

**Relevance.** In recent years, in the structure of clinical forms of tuberculosis in adolescents, there has been a prevalence of pronounced infiltrative changes with disintegration and release of mycobacteria, which is quite dangerous for others, especially in schools, technical schools, lyceums where they study. The second feature is that most of them refuse long-term inpatient treatment, often stop taking medications without permission, and run away from the department. Such an early interruption of treatment is associated with some undesirable phenomena: the process can turn into a chronic form, an increase in the size and appearance of new cavities, prolonged isolation of mycobacteria and a less dangerous phenomenon - when mycobacteria become drug resistant and the risk of spreading drug-resistant tuberculosis among the population increases. Therefore, it is currently necessary to develop new methods of drug administration to accelerate the length of hospital stay.

The effectiveness of treatment was evaluated in 2 groups of patients with newly diagnosed tuberculosis who secrete drug-resistant *Mycobacterium tuberculosis*. In the treatment complex in the main group of 96 patients, the author's method of retrosternal lymphotropic administration of drugs was used; the control group (n = 93) received only combined chemotherapy. The treatment method has shown high effectiveness in the treatment of newly identified cases of destructive pulmonary tuberculosis, including acute progressive forms and caseous pneumonia. Cessation of bacterial discharge and closure of the carious cavity increased by 26.9% and 27.2%, respectively. The increase in the frequency of abacillation was 32.9% in acute progressive processes and 41.2% in caseous pneumonia. The authors demonstrate the effectiveness of the method in the treatment of bronchial or laryngeal tuberculosis and the expediency of using a retrosternal procedure during preoperative preparation.

**The purpose of the study.** To study the effectiveness of lymphotropic therapy in adolescents in terms of the severity of resorption of infiltrative shadows, healing of cavities and cessation of bacterial excretion.

**Materials and methods of research.** The analysis of the case histories of 46 patients aged 14 to 16 years who received treatment at the regional tuberculosis dispensary was carried out. Technique of retrosternal lymphotropic administration of an antitubercular drug- isoniazid 10% isoniazid solution at the rate of 10 mg / kg into retrosternal tissue by puncture access from the jugular fossa.. The procedure was performed 2 times a week, the number of injections was a maximum of 40 injections.

**The results of the study and their discussion.** The study group was dominated by males - 33 (71.7%), living in rural areas - 29 (63%). 28 (60.9%) patients were identified by their treatment, 14 (30.4%) were identified as persons at risk, 6 (8.7%) in the study of family contact with tuberculosis patients. 14 patients went to the polyclinic due to acute deterioration of their health and were hospitalized with pneumonia diagnoses. The clinic was asymptomatic in 26 adolescents, asymptomatic in 6, they were detected during fluorography. Upon admission to the tuberculosis dispensary, adolescents underwent clinical, X-ray and laboratory examinations: blood and urine tests, biochemical examination of liver function, sputum examination for mycobacterium tuberculosis, Mantoux reaction with 2 TE PPD-L.

The X-ray examination included: radiographs in direct projection and optimal sections of tomograms, if necessary, computed tomography was performed. Upon admission, the condition of patients was assessed as satisfactory - 8 patients, relatively satisfactory - 32, moderate- severe - 3, severe- 3. Symptoms of intoxication: fever - 30; weakness- 40, malaise- 35; decreased appetite- 41, weight loss- 29. Concomitant diseases were found in 14 (30.4%) : type I diabetes mellitus - in 4; gastric ulcer -5, chronic hepatitis- 4, rheumatoid polyarthritis, long-term prednisone treatment - 1. The prevalence of the process: unilateral process -27 (58.7%); damage to both lungs was noted in 19 patients (41.3%), decay cavities were determined in 36 patients (78.2%). Mycobacteria were found in 28 adolescents. By the end of the second month of chemotherapy, the cessation of bacterial excretion was observed in 20 out of 28 patients, the symptoms of intoxication decreased significantly. Lymphotropic therapy in combination with anti-tuberculosis drugs allowed a significant reduction in intoxication, in addition, significant positive changes in the hemogram were noted: signs of anemia ceased to be detected in 34 out of 39 patients; leukocytosis  $9-12 \times 10^9 / l$  and rod-nuclear shift normalized in all patients; ESR remained increased in only 10 patients.

The timing of resorption of infiltrative changes depended on the severity of the process. By the end of 2 months, significant resorption of infiltrative changes with unilateral processes was achieved in 15, small cavities healed in 12, with bilateral processes, resorption was achieved in 9, cavities decreased in size in 10 patients. However, by the end of 6 months of treatment, in patients receiving retrosternal lymphotropic therapy, the cessation of bacterial excretion was achieved in 26 (93%), the healing of caverns out of 36 in 23 (64%) decreased in size in 10, caverns without dynamics in 3 (these are patients who had large caverns in the lungs). In the studied group, no side effects of anti-tuberculosis drugs were observed.

**Conclusions.** Thus, the inclusion of retrograde lymphotropic therapy in the complex treatment of patients with infiltrative tuberculosis allows: in a shorter period to achieve the disappearance of symptoms of tuberculosis intoxication; normalization of the hemogram. The cessation of bacterial excretion was achieved in 93% of cases. Although cavern healing was observed in 64% of cases, patients with preserved caverns ceased to pose an epidemic danger to others.

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