

Psychoemotional Treatment of Patients with Spinal Tuberculosis

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Annotation: There is no consensus on the expediency of using surgical methods of treatment in patients with primary tuberculous ostitis due to the high risk of postoperative complications. The aim of the work was the need to analyze the results of complex chemotherapeutic and surgical treatment of patients in the I-IV stages of the tuberculous process of the spine. The duration of the rehabilitation period in patients operated on in the IV stage of the tuberculosis process complicated by abscessing is twice as long as the duration of treatment of patients operated on in the I-II stages of spinal tuberculosis. The number of purulent-inflammatory complications in the early postoperative period in patients with spinal tuberculosis in stages III-IV with abscess reaches 22.2%.

Keywords: tuberculosis of the spine; phases; methods of surgical treatment.

Relevance. In accordance with the federal clinical guidelines for the diagnosis and treatment of osteoarticular tuberculosis in adults from 2020, indications for surgical treatment of spinal tuberculosis are all forms and stages (I-V) of the specific process. Depending on the prevalence, type of course, stage and complications of a purulent-inflammatory nature, severity of compression of the spinal cord, disorders of the supporting function of the spine and orthopedic consequences of vertebral destruction, methods, volume and types of surgical aid are determined [1,5,7,10,12]. Timely chemotherapeutic and surgical treatment, undertaken at the stage of progressive osteitis with a local lesion of the vertebra, aimed at the rehabilitation of the tuberculous focus and plastic replacement of the postresection defect, prevent the desymination of the tuberculous process, exclude the likelihood of compression fracture, the development of kyphotic deformity. The cure is achieved in 99.0% of patients [4,6,11,13,14]. The detectability of the disease at the stage of primary tuberculous ostitis, despite the appearance of highly informative diagnostic methods, remains quite low, including due to the lack of alertness of specialists to identify a specific process [1]. As a rule, surgical care (with the primary task of rehabilitation of the tuberculous focus) is provided in the III-III clinical stages of progressive spondyloarthritis with damage to 1-2 vertebral-motor segments and in the IV stage of progressive destructive spondyloarthritis. Reconstructive repair operations in patients with posttuberculous spondyloarthrosis (V clinical stage) are undertaken in order to reduce spinal deformity, eliminate compression of the spinal cord, restore the ability to support the affected spine [1,2,12,14,15]. A wide arsenal of modern constructions for anterior fusion and posterior fixation allows, adequately to the clinical situation, to choose the optimal devices and methods of surgical treatment [1,4,5,6,11,12,15]. Non-radical operations in stages II-IV of progressive spondyloarthritis, operations in patients with the consequences of tuberculous spondyloarthritis (stage V) achieve success only in 60% of patients [1,2,9,12,14]. The purpose of the study: to analyze the results of complex chemotherapeutic and surgical treatment of patients in stages I-IV of the tuberculous process of the spine. Materials and methods In the department of osteoarticular and urogenital tuberculosis GBUZ JSC "Amur Regional Tuberculosis Dispensary"

Blagoveshchensk, GBU RO "Specialized Tuberculosis Hospital" Rostov-on-Don, FGKU "1586 EKG" of the Ministry of Defense of the Russian Federation, Podolsk, Moscow region, GKUZ CO "Novokuznetsk Clinical Tuberculosis Dispensary", Novokuznetsk, Kemerovo region in the period 2013-2016, 43 patients aged 19 to 65 years with bacteriologically confirmed tuberculosis process of the spine were treated. When forming the diagnosis, the classification of ICD-10 (A18.3) and proposed by the Association of Pediatricians of the Russian Federation from 2013 [9] were used, the clinical aspects of which complete the classification (corresponding to statistical tasks) in Order No. 109 of the Ministry of Health of the Russian Federation dated 21.03.2003. "On the co-v e r s e n s t v o v a n i and anti-tuberculosis measures in the Russian Federation". The severity of spinal cord injury was assessed according to the ASIA/ISNCSCI scale of 2015 [3]. The extent, type of course, clinical form, stage of the tuberculosis process and the nature of complications were taken into account. Tu b e rk u l e z n y ostitis was detected in 12 (27.9%) patients initially hospitalized in a neurosurgical clinic due to a compression fracture of the body of the patient. In one patient with C5 ostitis, according to the results of computed tomography of the lungs, small foci of infiltration were found in the upper lobe of the right lung, and in a patient with a lesion of the L4 vertebra, pulmonary tuberculosis at the healing stage (Table 1). 4 (9.3%) patients with active progressive spondyloarthritis with a lesion of one spinal motor segment of stage II, including 3 patients with a combined form of tuberculosis, were sent for hospitalization from an antitubercular dispensary for surgical treatment (Table 1). For surgical treatment of active progressing spondyloarthritis with a lesion of one vertebral segment of stage II-14 (32.6%) patients were hospitalized in the motor segment of stage III, including one patient with concomitant pulmonary tuberculosis. As a result of significant kyphotic deformation in 12 patients and in two patients with transverse ligament lesion and dislocation of the C1 vertebra anteriorly, compression of the spinal cord with neurological deficiency was observed. In addition to spinal cord compression, prevertebral or paravertebral abscesses were detected in 8 patients (Table 1). 13 (30.2%) patients were hospitalized with chronic destructive spondyloarthritis with lesions of two or three vertebral-motor segments of stage IV. 10 (76.9%) of them had abscesses, including a patient with combined tuberculosis (a history of pulmonary tuberculosis) (Table 1). The program of a comprehensive study of patients, in addition to standard biochemical, clinical blood and urine tests, included lung radiography, CT and (or) MRI of the spine. To determine the infection rate of M. tuberculosiscomplex, the phenomena of Rforms used the PCR method. To isolate Mycobacterium tuberculosis, a bacteriological study of cerebrospinal fluid, sputum, and urine was performed using a culture method, followed by the study of preparations stained according to Zil-Nielsen [7,8,9]. The state of immunity was assessed according to immunograms, B- and T-lymphocyte testing, and an ELISA test system with HIV antigens. When examining patients in accordance with the recommendations of ASIA (ASIA/ISNCSCI (2015)), the level, completeness, and degree of damage to the spinal cord were determined [3]. The timing of preoperative preparation of patients, the volume, methods of drug and surgical treatment correlated with the results of the study. As a preoperative preparation, 21 (48.8%) patients with purulent and purulent-neurological complications were prescribed detoxification therapy, transfusion of native plasma, blood (erythrocyte mass). Based on the results of a PCR study undertaken during hospitalization, all patients with local forms of tuberculosis (ostitis, damage to one vertebral-motor segment without purulent complications) were prescribed anti-biotic therapy, including intravenous administration of rifampicin (450-600 mg) once a day, isoniazid 0.6 g and pyrazinamide 250 mg once a day. once a day. Previously treated patients with a high risk of drug resistance and patients with purulent complications with lesions of two or more vertebral-motor segments in drug therapy included ethambutol (25 mg/ kg) and a fluoroquinol-type drug (thiocetazone 1.0 mg/ kg). In the postoperative period, in accordance with the results of bacteriological research, including the sensitivity of microflora to antibiotics, the dynamics of the functional state of organs and systems, the immune status of the appointment was correlated [7]. Surgical interventions in 30 (69.8%) patients with purulent and neurological complications were performed as soon as possible after hospitalization (after 1-3 days). The primary objectives of the operation were the elimination of a purulent focus with resection of the vertebral body, the inter-vertebral disc, if necessary, the part of the rib (ribs) adjacent to the vertebra, decompression of the spinal cord, plastic reconstruction of the postresection defect of the vertebral body (bodies), stabilization of the affected spine. Sanitizing resection of the lesion, performed with preservation of the posterior longitudinal and yellow ligaments, in 5 (41.7%) of 12 patients with ostitis without compression of the spinal cord with a kyphotic deformity of no more than 150, was completed with anterior fusion. In 3 patients with C5 vertebral ostitis, Mech implants were used (Medtronic, USA, registration certificate No. RZN 2013/333), including one patient in a combination with a ventral plate and 2 patients with Th9 and L4 ostitis, porous cylindrical nitinol implants with through porosity were used (LLC "MIC SPF", Russia, registration certificate No. FSR 2009/04558) (Fig. 1). After surgery, until the appearance of signs of bone block formation, patients needed external immobilization. Combined spinal fusion was preferred in 7 (58.3%) patients with tuberculous ostitis, accompanied by compression of the spinal cord, and osteotic deformity from 150 to 240. After necrectomy and anterior decompression of the spinal cord, anterior fusion was performed in 4 cases with a Mech implant and in 3 patients with a porous cylindrical implant. After 10-14 days, posterior fusion was performed using dynamic braces with the effect of shape memory with fixation of the collarbones-grips for the arches above and below (from the damaged) vertebrae. For physical loads, immobilization was recommended. Combined spinal fusion was performed in 4 (9.3%) patients with progressive tuberculous spondylitis of stage II without functional impairment. Cylindrical porous implants were used for anterior fusion in 3 patients with a lesion of one spinal motor segment, with a kyphotic deformity of 18-20o, and dynamic braces with shape memory effect were used for posterior fusion. In a patient with renal tuberculosis and tuberculous spondylarthritis of the Th12-L1 and L3 -L4 vertebrae, posterior spondylodesis was performed using a transpedicular system (Medtronic, USA, registration certificate No. RZN 2013/333). Surgical stabilization of the spine was sufficient. Patients were activated 1-2 days after anterior fusion. Additional fixation (with a corset) was recommended during physical exertion. In 14 (32.6%) patients with progressive tuberculous spondyloarthritis with a lesion of one spinal motor segment of stage III with neurological (6) and purulent-neurological complications (8) and 13 (30.2%) patients with chronic structural spondyloarthritis of stage IV with lesions of two or more spinal motor segments with purulent-neurological (7), purulent (4) and neurological (2) complications, the first stage was carried out by stimulating resection of the tuberculous lesion, abscess drainage, spinal cord decompression, anterior fusion. In all patients with purulent and purulent-neurological complications, posterior fusion was performed 45 ± 2 days after anterior fusion with normalization of the functional state of the body, convincing results of studies confirming the absence of inflammation in the area of implants and after 12-14 days, posterior fusion was performed in patients with no abscesses. 2 (14.3%) of 14 patients with active progressive spondyloarthritis of stage III, due to dislocation of the C1 vertebra anteriorly and compression of the spinal cord, laminectomy and decompression of the spinal cord were performed according to emergency indications. Caseous necrotic masses were removed. After decompression and restoration of anatomical and topographic relationships. occipitospondylodesis was performed using a universal system of posterior stabilization of the cervical spine of the hook-shaped configuration (Konmet LLC, registration certificate No. RZN 2014/197) with fixation of distal hooks for the arches of the C3 vertebra. In the second patient, occipitospon- dilodesis was performed using a lamellar brace with fixing grips for the occipital bone and the spinous process of the C2 vertebra. Clinical cure in patients with spinal tuberculosis, including with a combined form of tuberculosis, was recognized in the absence of signs of active tuberculosis, established by clinical, radiation and laboratory signs. The degree of correction of intraoperative kyphotic deformity and its preservation in the postoperative period, the quality and time of formation of arthrodesis between the vertebral bodies, the dynamics of regression of neurological deficit, the duration of the rehabilitation period at the hospital and outpatient stages of treatment were determined [2,6,7,8,9,10]. In addition, the consequences of tuberculosis affecting the functional state of the organs and systems concerned were taken into account. The results of treatment of 16 (37.3%) patients with spinal tuberculosis in stages I-II were compared with the results of treatment in 27 (62.7%) patients with progressive tuberculosis spondyloarthritis in stages III-IV. The hospital period in patients with tuberculous ostitis and progressive spondyloarthritis of stage II was 39 ± 5 days, in 18 (66.7%) of 27 patients with stages III-IV of the tuberculous process complicated by ablation - 96 \pm 7 days and in 9 (33.3%) patients without purulent complications - 52 \pm 3 days. In 3 (16.7%) of 18 patients with stages III-IV of the tuberculosis process complicated by abscesses, after surgery, healing by secondary tension. In 1 (5.5%) patient after the operation, pulmonary tuberculosis – pleurisy with abscessing became more active. In 2 of these patients, according to the results of a bacteriological study of M.tuberculosis secreted through drains.

Резултаты. The analysis of the results of complex treatment of 43 patients with spinal tuberculosis in stages I-IV confirms the conclusion of other authors. In 16 patients with spinal tuberculosis in stages I-II, timely hospitalization and surgical intervention (before the development of purulent complications) made it possible to significantly reduce the time of rehabilitation and in 15 (93.7%) patients to obtain good treatment results. Signs of bone block formation in 14 (32.6%) patients with stage III spondylarthritis were detected 7-8 months after surgery and in 13 (30.2%) patients with stage IV chronic destructive spondylarthritis - after 10-11 months. Thus, surgical treatment in combination with chemotherapy, undertaken in the I-II stages of spinal tuberculosis, allows in 93.7% of cases to completely restore the musculoskeletal function of the spine. Correction of kyphotic deformity in patients with chronic destructive spondyloarthritis with more than two vertebral-motor segments in stage IV is possible within 150. The duration of the rehabilitation period in patients operated on in the IV stage of the tuberculosis process complicated by abscess is twice as long as the duration of treatment of patients operated on in the I-II stages of vertebral tuberculosis. The number of purulentinflammatory complications in the early postoperative period in patients with spinal tuberculosis in stages III-IV with abscission reaches 22.2%.

LITERATURE

- Alatortsev A.V., Belyakov M.V., Vasilyeva G.Yu. et al. Surgical treatment of osteoarticular tuberculosis / Edited by Yu.N. Levashev, A.V. Pushkin. – St. Petersburg: St. Petersburg Research Institute of Phthisiopulmonology, 2008. – 226 p.
- 2. Baulin I.A., Gavrilov P.V., Sovetova N.A., Mushkin 48 Siberian Medical Journal (Irkutsk), 2017, no.
- 3. A.Yu. Radiation analysis of bone block formation when using various materials for anterior fusion in patients with infectious spondylitis // Spine surgery. 2015. Vol. 12. No. 1. p.83-89. -DOI: http://dx.doi.org/10.14531/ss2015.1.83-89
- 4. Vissarionov S.V., Baindurashvili A.G., Kryukova I.A. International standards of neurological classification of spinal cord injury (scale ASIA/ISNCSCI, review 2015) // Orthopedics, traumatology and reconstructive surgery of childhood. 2016. Vol. 4. Issue 2. pp.67-71.
- Isomiddin Xaydarovich Usmonov, Nodir Yusufovich Kobilov. (2021). Epidemiology, Clinical Course, Diagnosis and Treatment of Generalized Tuberculosis in Modern Circumstances Literature Review. Annals of the Romanian Society for Cell Biology, 25(2), 3806–3819.
- Kh U. I., Muazzamov B. R., Jumaev M. F. Features of diagnostics and treatment of drugresistant forms of pulmonary tuberculosis //International journal of pharmaceutical research. - 2021. - T. 13. - №. 1. - C. 2484-2489.
- Aslonov F.I, Rustamova S.A., & Raxmonova K.M. (2021). IMMUNOPATOLOGICAL ASPECTS IN PATIENTS WITH FIRST DETECTED PULMONARY TUBERCULOSIS. World Bulletin of Public Health, 4, 91-95. Retrieved from https://scholarexpress.net/index.php/wbph/article/view/282

- 8. Ismoilovich, A. F. . (2022). Modern Diagnostic Test for Tuberculosis. European Multidisciplinary Journal of Modern Science, 4, 408–412. Retrieved from https://emjms.academicjournal.io/index.php/emjms/article/view/106
- 9. Ismoilovich, A. F. (2022). Tuberculosis Diagnostics with Modern Solutions (Literature Review). CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES, 3(3), 377-383. Retrieved from https://cajmns.centralasianstudies.org/index.php/CAJMNS/article/view/797
- Bakhtiyor Z. Khamdamov, Farrux I. Aslonov, Salim, S. I. A. T. M. Z. R. R. (2021). CURRENT INTERNATIONAL STANDARDS FOR MONITORING LOWER URINARY TRACT SYMPTOMS AND SIGNS OF BENIGN PROSTATIC HYPERPLASIA AND TUBERCULOSIS PATIENTS . Journal of Natural Remedies, 22(1(2), 117-123. Retrieved from https://www.jnronline.com/ojs/index.php/about/article/view/908
- 11. Guljamol F., M. ., & F. Sh., X. . (2022). Pathomorphological Changes Occurring in the Spleen as a Result of External and Internal Factors. International journal of health systems and medical sciences, 1(5), 132–137.
- 12. Fazliddinovna, M. G. . (2023). Oncopsychology of Patients with Breast Cancer after Treatment. Scholastic: Journal of Natural and Medical Education, 2(2), 111–116.
- Uygunovich N. A., & F., M. G. (2023). Morphofunctional Changes of the Spleen Under the Influence of Various Factors in Postnatal Ontogenesis. Web of Semantic: Universal Journal on Innovative Education, 2(5), 228–233.
- 14. Akhtamovna, K. N. (2021). Fibrotic Complications in the Lungs in Patients Who Have Had COVID-19 Pathogenesis of COVID-19. European Journal of Life Safety and Stability (2660-9630), 9, 14-24.
- 15. Jumayev Mukhtor Fatullayevich. (2021). BIOLOGICAL CHARACTERISTICS OF THE CAUSATIVE AGENT OF TUBERCULOSIS IN PATIENTS WITH PULMONARY TUBERCULOSIS. World Bulletin of Public Health, 5, 27-32. Retrieved from https://scholarexpress.net/index.php/wbph/article/view/368
- Salimovna, A. G. (2022). Diagnosis of Tuberculosis Infection Activity by ELISA and Transcription Analysis Methods. European Multidisciplinary Journal of Modern Science, 4, 492–497. Retrieved from https://emjms.academicjournal.io/index.php/emjms/article/view/120
- o'gli, A.M.U. 2022. Test for Procalcitonin as a Way to Predict Patients with Respiratory Tuberculosis. European Multidisciplinary Journal of Modern Science. 4, (Mar. 2022), 486– 491.
- Ulugbek o'gli, A. M. (2022). Factors Predicting Mortality in Pulmonary Tuberculosis. CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES, 3(3), 362-367. Retrieved from https://cajmns.centralasianstudies.org/index.php/CAJMNS/article/view/795
- 19. Mizrobovna, R. K. (2022). Accompanying Diseases of the Respiratory System Pulmonary Tuberculosis. European Multidisciplinary Journal of Modern Science, 4, 244–250. Retrieved from https://emjms.academicjournal.io/index.php/emjms/article/view/75
- 20. Axmadova Maftuna Amin qiziBukhara Medical Institute assistant department Onkology and medical radiology/Modern Analysis of the Diagnostic Effectiveness of Digital Mammography/International Interdisciplinary Research JournalVolume2,Issue 5 Year2023ISSN:2835-

3013https://univerpubl.com/index.php/synergyhttps://univerpubl.com/index.php/synergy/article/view/1680

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- 22. Akhmadova Maftun Amin kizi Analysis of the Modern Diagnostic Effectiveness of Mammography International Journal of Health Systems and Medical Sciences ISSN: 2833-7433 Volume 2 | No 9 | Sep -2023