JOURNAL OF HEPATO-GASTROENTEROLOGY RESEARCH
ЖУРНАЛ ГЕПАТО-ГАСТРОЭНТЕРОЛОГИЧЕСКИХ ИССЛЕДОВАНИЙ

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THE EFFECT OF PULMONARY TUBERCULOSIS ON THE MENTAL STATE OF ADOLESCENTS

ABSTRACT

A comparative assessment of the psychological characteristics of adolescents with pulmonary tuberculosis. The personal characteristics of 100 adolescents aged 13-17 treated at the Samarkand Regional Center for Tuberculosis and Pulmonology, as well as various features of newly diagnosed respiratory tuberculosis, were studied, including 58 (58%) girls and 42 (42%) boys. Patients with MDR-TB see themselves as altruistic, more likely to feel willing to sacrifice their own interests, help others, and show compassion. Such adolescents tend to make a pleasant impression on others and idealize interpersonal relationships that typically show tenderness, sensitivity, and compassion for them ($p < 0.05$). In adolescents with pulmonary tuberculosis with widespread processes, personality traits that determine the formation of neurosis were observed: insecurity, emotional instability, anxiety, weakness. In a small group with limited lesions, high rates of resentment and hostility were rare.

Keywords: pulmonary tuberculosis, adolescent, personal characteristics, patient

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ВЛИЯНИЕ ТУБЕРКУЛЕЗА ЛЕГКИХ НА ПСИХИЧЕСКОЕ СОСТОЯНИЕ ПОДРОСТКОВ

АННОТАЦИЯ

Проведена **с**равнительная оценка психологических характеристик подростков с туберкулезом легких. Изучены личностные характеристики 100 подростков 13-17 лет, проходивших лечение в Самаркандском областном центре туберкулеза и пульмонологии, а также различные особенности впервые выявленного туберкулеза органов дыхания, в том числе 58 (58%) девочек и 42 (42%) мальчика. Результаты исследований и их обсуждение. Пациенты с МЛУ-ТБ считают себя альтруистами, которые с большей вероятностью захотят

пожертвовать своими интересами, помочь другим и проявить сострадание. Такие подростки, как правило, производят приятное впечатление на других и идеализируют межличностные отношения, которые обычно проявляют нежность, чувствительность и сострадание к ним (p <0,05).

Заключение. У подростков с туберкулезом легких с распространенными процессами наблюдались личностные черты, определяющие формирование невроза: неуверенность, эмоциональная нестабильность, тревожность, слабость. В небольшой группе с ограниченными поражениями высокий уровень негодования и враждебности был редкостью.

Ключевые слова: туберкулез легких, подросток, личностные характеристики, пациент.

Relevance. In modern psychology, great attention is paid to the study of the mental state of people suffering from tuberculosis and other socially significant diseases. In this case, the main research is devoted to the study of the psychological appearance of adult patients with tuberculosis (TB), but the various manifestations of tuberculosis infection in children, especially adolescents, have not been adequately studied, although knowledge of these features may help adolescents develop psychological support in treatment and rehabilitation was possible.

Reporting a diagnosis of tuberculosis is a polymorphic condition that is a potent detrimental factor leading to the development of individual reactions and emotional disturbances in patients [1]. It has been reported that more than 80% of newly diagnosed TB patients experience severe neurotic changes that develop against the background of existential depression, decreased internal reserves, and impaired interpersonal relationships [5].

One of the priorities in the fight against tuberculosis as an infectious disease is to reduce the source of tuberculosis infection and prevent the development of new infections and diseases by fully treating these newly diagnosed patients [7,10].

The wide-ranging problems associated with the psychological aspects of childhood tuberculosis have not been adequately studied. Interest in these issues is mainly reflected in the study of changes in the psychological state under the influence of developing infectious diseases [4, 9]. In practice, the psychological state of adolescents has a direct impact on the effectiveness of treatment [2]. Only a few works have considered the mental state of children and adolescents as one of the risk factors for the development of the TB process [3,5], provided a psychological basis for the need to develop a comprehensive rehabilitation and prevention system in TB outbreaks. The authors note that tuberculosis in one of the parents leads to an increase in psychological stress and a decrease in the child's resistance to stress, as well as various psychological problems, which contribute to the development of somatic and infectious diseases in children from socially disadvantaged and disadvantaged families [5]. One of the possible directions of studying the psychological risk factors of the tuberculosis process and developing a system of psychological rehabilitation aimed at psychological prevention of the disease is to assess the psychological characteristics of patients with different features of respiratory tuberculosis [9,11,12].

The purpose of the work. A comparative assessment of the psychological characteristics of adolescents with pulmonary tuberculosis.

Materials and inspection methods. The personal characteristics of 100 adolescents aged 13-17 treated at the Samarkand Regional Center for Tuberculosis and Pulmonology, as well as various features of newly diagnosed respiratory tuberculosis, were studied, of which 58 (58%) were girls and 42 (42%) were boys. Clinically, inflammatory tuberculosis - 56 (56%), focal tuberculosis - 17 (17%) and tuberculosis - 2 (2%) cases were observed. In the remaining 25% of cases, tuberculosis of the intrathoracic lymph nodes, disseminated tuberculosis and fibrous-poplar tuberculosis, caseous zotiljam were diagnosed. Bacterial isolation was detected in 32 (32%) of adolescents, and drug resistance of mycobacteria was detected in 22 (22%) patients, of which 9 (41%) patients had multi-drug resistance status. The extent of damage to lung tissue was assessed in points, taking into account the specific features of the disease: limited processes with uncomplicated course - 1 point; uncomplicated processes - 2 points: Complicated processes - 3 points: Complicated processes - 4 points. Injury of 1-2 segments of lung tissue was included in limited processes, in more than 2 segments of a single lung, or in the degree of bilateral pathological changes in common processes [9]. The grouping of patients according to the extent of lung tissue injury and the course of the tuberculosis process is shown in Table 1.

Table 1.

Grouping of adolescents according to the extent of lung tissue damage and the course of tuberculosis.

Ball	Process distribution	Number of patients (%)
1	Uncomplicated limited processes	50
2	Uncomplicated processes with uncomplicated course	36
3	Limited processes that complicate the course	-
4	Unrestricted processes that are complicated to pass	14

Quantitative assessment The amount of destructive changes corresponded to the size of the landslide: no destructive changes - 0 points: the size of the landslide was up to 2 cm - 1 point: the size of the

landslide was from 2 to 4 cm - 2 points: the size of the landslide was from 4 to 6 cm - 3 points: the size of the sliding cavity greater than 6 cm - 4 points. Table 2 presents the results of a systematic assessment of destructive changes in the lungs.

Table 2.

Grouping of adolescents according to the extent of destructive changes in lung tissue

Ball	The magnitude of the destruction changes	Number of patients (%)
0	Absence of destructive changes	52
1	The size of the decay cavity is up to 2 sm	31
2	The size of the decay cavity is 2 to 4 sm	12

The total amount of TB lesions of lung tissue was generated as a general radiological index (RI), defined as low, medium, and high, taking into account the specific features of the disease, as well as the extent of destructive changes. In the assessment of clinical symptoms, the severity of the general disorder syndrome was determined: markedly underdeveloped - 1 point: moderately developed - 2 points: clearly developed - 3 points. The presence of asthenoneurotic reactions without an increase in body temperature is a slight manifestation of the general disorder syndrome: moderate - a combination of asthenoneurotic reactions with functional disorders of various organs and systems, as well as minimal changes in peripheral blood; clearly developed - a combination of asthenoneurotic reactions with functional disorders of various organs and systems, as well as moderate and marked changes in peripheral blood, paracetamol reactions [9]. The distribution of patients according to the manifestation of the symptom complex of general disorders is given in Table 3.

Table 3.

The division of adolescents into groups according to the manifestation of symptoms of common disorders

Ball	The severity of the symptoms of general disorders	Number of patients (%)
0	Unchanged	33
1	Not clearly developed	25
2	Moderately developed	26
3	Clearly developed	16

Based on a comprehensive evaluation of clinical and laboratory data, the severity of the general disorder syndrome reflected a general intoxication index (II): defined as low, moderate, and high.

Adolescent psychological examination was performed at the diagnostic stage, before chemotherapy. A study of the main factors pertaining to the individual R. Kettell's personality questionnaire (a form adapted for adolescents), personality aggression, forms of disruptive behavior - A. Bass and A. Perceptions, leading interpersonal style - T. Liri survey, alexithymia level - was conducted using the Toronto alexithymic scale. Psychological status assessment methods were also used: SCL-90-R, a questionnaire on the development of psychopathological symptoms, an eight-color test produced by Lusher [11]. In statistical analysis, we used parametric and non-parametric comparison methods (Student's t-principle, Mann-Whit's U-principle), as well as Fisher's accuracy and r-Pearson's correlation coefficient. The differences were found to be significant at p <0.05.

Research results and their discussion. A comparative analysis of the data obtained allowed to identify significant differences in the emotional characteristics and social behavioral regulation features (factors C and G in R. Kettell's survey) of patients with different prevalence of the TB process. In adolescents with common processes, personality traits that determine the formation of neurosis were observed: insecurity, emotional instability, anxiety, weakness (factor C). Factor C, indicating "emotional instability," was more common in adolescents with widespread processes in the lungs (21% of cases) and less common in limited processes (7% of cases, p <0,05). However, in 37% of adolescents with common processes, features characterized by "high normative behavior" (G factor) were observed: desire to follow generally accepted rules and norms, make a good impression on others, idealize themselves and interpersonal relationships (in limited processes - 12% of cases, p <0,05). In a small group where widespread processes were present, personality-based destructive attitudes such as resentment and hostility were more pronounced (60% of cases). High rates of resentment and hostility are rare in a small group with limited lesions (39% of cases, p <0,05). It was found that authoritarian behaviors predominate in the interpersonal relationships of patients with common processes: the pursuit of competent leadership, influence on others, self-direction (39% of cases; among limited processes - 19% of cases: p <0,05). Adolescents with varying degrees of lung collapse also found significant differences in emotional personality traits. Low values for factor C ("emotional instability" factor) are more common in patients with a ruptured cavity than in patients without a ruptured cavity (24 and 8%, respectively, p <0,05). In addition to the above-mentioned neurotic changes, elevation of factor D ("high emotional excitability") was observed in 17 and 2% of cases (p <0,05) in patients with degenerative

cavities. The high level of factor D is characterized by a lack of emotional control, the manifestation of various affective reactions in situations that are subjectively difficult for a person (conflict between desire and opportunity, lack of respect and recognition, etc.). Compared with patients with high RI, patients with low RI had "low emotional arousal" rates of factor D (52 and 35% of cases, respectively, $p < 0,05$). Adolescents with low RI were also characterized by stress tolerance (49 and 29%, respectively, $p < 0,05$). Neurotic changes associated with the presence of weakness, anxiety, depression, fear, guilt, and low self-esteem were more pronounced in patients with high and moderate intoxication indexes compared with low-index adolescents (O factor high: "anxiety" - 31 and 15% of cases, respectively, $p < 0,05$). In interpersonal relationships, 72% of patients with a high and moderate intoxication index tend to exhibit verbal aggression, while only 48% of patients with a low intoxication index have such features ($p < 0,05$).

In 60% of patients with bacterial excretion, personality traits, i.e., emotional sensitivity, softness, need, are more reflected (upper pole of factor I: "sensitivity"). In non-bacterial adolescents, these features were detected in only 29% of cases ($p < 0,05$). Considering drug resistance (MDR-TB), the personal characteristics of adolescents, the peculiarity of interpersonal relationships, criticism of others, social phenomena, skepticism of other people's opinions are strongly developed. A similar pattern occurs in 35% of patients with MDR-TB and in only 8% of adolescents who are sensitive to the main drug ($p < 0,05$). At the same time, patients with MDR-TB feel more altruistic, more willing to sacrifice their own interests, help others, and show compassion. Such adolescents tend to make a pleasant impression on others and idealize interpersonal relationships that typically show tenderness, sensitivity, and compassion for them ($p < 0,05$).

Conclusion. In adolescents with pulmonary tuberculosis with widespread processes, personality traits that determine the formation of neurosis were observed: insecurity, emotional instability, anxiety, weakness. In a small group with limited lesions, high rates of resentment and hostility were rare.

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MDR-TB strongly developed the personal characteristics of adolescents, the peculiarity of interpersonal relationships, criticism of others, social phenomena, skepticism of other people's opinions.

Список литературы/References

1. Ataxanovna, K.S., Toirjonovna, M.N., Urinovich, K.K., Nazarovich, S.G., Murodullayevich, B.U. The Effectiveness of Short-Term Treatment Regimens In The Treatment Of Drug-Resistant Forms Of Tuberculosis. *European Journal of Molecular & Clinical Medicine, 2020*, Volume 7, Issue 3, Pages 5236-5240.

2. Ellamonov S.N., Tashkenbaeva E., Abdieva G.A., Nasyrova Z.A., Khamidov N.S. Factors of arterial hypertension progression in patients in comorbidity with type 2 diabetes mellitus. Journal of cardiorespiratory research. 2021, vol.2, issue 2,pp.16-21.

3. Rizayev J.A. Primary prevention of dental caries in children // Belt&Road Joint Development Forum in Dentistry / Stomatology, September 21, 2017. Shanghay, China, P. 41-43.

4. Xaydarovna, M.F., Narzullaevna, R.O. (2020). Prevention Of Anemia In Patients With Tuberculosis. The American Journal of Medical Sciences and Pharmaceutical Research, 2(11), 62-65. https://doi.org/10.37547/TAJMSPR/Volume02Issue11-11.

5. Yarmukhamedova N.A. The challenge of emerging and re-emerging infectious diseases in Uzbekistan: study of rickettsiosis using pcr diagnostic method // European science review, 2018. № 5-6. С. 177-179.

6. Аджаблаева Д. Н. Изучение параметров качества жизни детей и подростков с ВИЧ-ассоциированным туберкулезом // Туберкулёз и болезни лёгких. – 2020. – Т. 98, № 9. – С. 14-17. http://doi.org/10.21292/2075-1230-2020-98-9-14-17.

7. Дробот Н. Н. Туберкулез органов дыхания у подростков - психоэмоциональный статус // Психология здоровья и болезни: клинико-психологический подход: Всерос. науч-практ конференция с междунар. участием – Курск, 2011. - С. 101-102.

8. Залотова Н. В., Ахтямова А. А. Стрельцов В. В. и др. Психологические факторы патогенеза туберкулеза органов дыхания у детей и подростков// Туб. - 2013. - № 4. - С. 25-32.

9. Маматова Н.Т., Ходжаева С.А. Выявление туберкулёза лёгких у больных с психическими расстройствами. // Журнал молодёжный инновационный вестник. 2018. №1 (7). стр. 68.

10. Мордык А. В., Подкопаева Т. Г., Герасимов Н. Н. и др. Формирование подходов к созданию программ психологической реабилитации детей в очагах туберкулезной инфекции // Туб. - 2014. - 8. - С. 71 -72.

11. Панова О. В. Комплексное лечение деструктивного туберкулеза легких у детей и подростков: Дис... д-ра мед. наук. - М., 2013. - 179 с.

12. Ходжаева С.А. Отрицательные социальные факторы и их влияние на возникновение туберкулёза у детей. // Журнал молодёжный инновационный вестник. 2018. №1 (7). стр. 67.