

MENTAL DISORDERS IN PATIENTS WITH NEWLY DIAGNOSIS OF TUBERCULOSIS

N.T.Mamatova¹  A.A.Ashurov²  B.A.Abdukhakimov¹ 

1. Samarkand State Medical University, Samarkand, Uzbekistan.

2. Samarkand Regional Center of Phthysiology and Pulmonology, Samarkand, Uzbekistan.

Abstract.

Relevance. The problem of tuberculosis, as an infectious disease, does not lose its heart against the background of a widespread decrease in tuberculosis. The results of the study indicate the development of borderline mental disorders in patients with tuberculosis after diagnosis, the elimination of which will help increase the effectiveness of complex treatment of tuberculosis.

Purpose of the study. Before the end of the second month of anti-tuberculosis chemotherapy, we set ourselves the goal of analyzing the development of observed mental disorders in patients of different ages with newly diagnosed tuberculosis, as well as comparing the obtained results with the control group of healthy people. **Materials and methods of the study.** The study involved 120 patients who were first diagnosed with tuberculosis. 78 of the patients were male and 42 were female. The control group consisted of relatively healthy people who regularly visited polyclinics, namely 135 men and 45 women. The study was conducted using the method of differential diagnosis of depressive states by V. Zung, adapted by T.I. Balashova. The study was conducted in outpatient and inpatient settings with the participation of patients with depression of mental or organic origin.

Research results. Neurogenic mild depression was observed in 18 (23,1%) men and 14 (33,3%) women. A masked depression was observed in 5 (6,4%) men and 8 (19,04%) women. Such people are chronically tired, sleep poorly at night and are excessively sleepy during the day, their memory deteriorates sharply, and they have difficulty concentrating on a particular type of activity. Despite the relatively low percentage of patients in this category, close supervision by a doctor is required. Such individuals experience such conditions as a state of constant depression, a slowdown in mental and labor activity, somatoneurological disorders, a decrease in life needs, a pessimistic assessment of oneself and its place in the surrounding reality. **Conclusion.** To identify patients in need of measures to improve their mental state, as well as patients with tuberculosis for the first time, the V. Zung method of differential diagnosis of depressive states, adapted by T. I. Balashova, can be used. In the majority of patients with newly diagnosed tuberculosis, depressive disorders were not detected by the end of the second month of chemotherapy. As a result of the study, it was found that patients with tuberculosis diagnosed for the first time experience mild depression more often than healthy people. Therefore, psychological and even some medical care specially organized to overcome depressive tendencies of different degrees may be needed at the end of the second month of chemotherapy for patients diagnosed with tuberculosis for the first time.

Key words: tuberculosis, chemotherapy, depressive disorders, healthy people, patients.

The relevance of the problem. The problem of tuberculosis, as an infectious disease, does not lose its heart against the background of a widespread decrease in tuberculosis [1, 2]. Its focus is still on improving the effectiveness of treatment of first-identified patients with tuberculosis as a top priority category of patients [3-5]. The results of the study show that patients develop mental disorders after being diagnosed with tuberculosis. Improving the effectiveness of complex anti-tuberculosis treatment helps to eliminate such mental disorders [6,8,10]. Until now, the continuation of depressive disorders in patients with tuberculosis for the first time after 2 months of treatment, that is, those who have completed the intensive chemotherapy stage, has not been sufficiently studied in scientific sources as a problem. After treatment procedures have been obtained in tuberculosis

patients with whom resistance to several drugs first identified, the dynamics of the process is carried out by X-ray examination [7,9,11]. The mental state of such patients can change in the process of waiting for the results to be obtained. We decided to study the presence and severity of depressive disorders in patients who were first diagnosed with tuberculosis at the end of the second month of chemotherapy, before the next X-ray examination. Taking into account the characteristics of mental disorder in such patients, timely elimination of identified mental disorders leads to an increase in the correct adherence to the treatment procedure in patients who have been diagnosed with tuberculosis for the first time.

Purpose of the study. Before the end of the second month of anti-tuberculosis chemotherapy, we set ourselves the goal of analyzing the development of observed mental disorders in patients of different ages with newly diagnosed tuberculosis, as well as comparing the obtained results with the control group of healthy people.

Research methods. The study involved 120 patients who were first diagnosed with tuberculosis. 78 of the patients were male and 42 were female. The average age of participants in the study was $39,12 \pm 12,18$ years, meaning that they were $36,84 \pm 10,41$ years old males and $39,85 \pm 11,78$ years old females. Persons with a scheduled examination in city polyclinics, consisting of 135 relatively healthy men and 45 women, were taken to the control group of our study. The average age of individuals in the control group, i.e., those who did not have tuberculosis, was $53,08 \pm 9,42$ years, their distribution was $56,27 \pm 9,18$ years of men and $52,37 \pm 9,71$ years of women. Table 1 shows the distribution of the study participants by age and sex.

Table 1. Distribution of study participants by age and gender

Age	Tuberculosis patients		Healthy people	
	Men (n=78) abs. (%)	Women (n=42) abs. (%)	Men (n=135) abs. (%)	Women (n=45) abs. (%)
Under 24	10 (12,8)	5 (11,9)	2 (1,5)	-
25-34	26 (33,3)	12 (28,6)	12 (8,8)	3 (6,7)
35-44	34 (43,6)	20 (47,6)	25 (18,5)	12 (26,7)
45-54	6 (7,6)	2 (4,7)	34 (25,1)	25 (55,5)
55-64	2 (2,7)	3 (7,2)	62 (46,1)	5 (11,1)

Individuals in the main and control groups participated voluntarily in the study. The study was conducted using the method of comparative diagnosis of depressive states by V. Zung, adapted by T.I.Balashova. The study was conducted in outpatient and inpatient settings with patients with depression who had mental or organic diseases. The subject fills out a questionnaire. Based on the questionnaire filled out by the patient, the severity of depression is assessed based on the patient's self-assessment. As a result, we get a depression level from 20 to 80 points. In individuals who do not experience mood decline during the experiment, the level of depression does not exceed 50 points, meaning a non-depressive state is diagnosed. If a slight but pronounced mood decrease is observed in the study participant, the level of depression is above 50 points and below 59 points, then a conclusion is drawn about mild depression of situational or neurotic genesis. When the indicator is from 60 to 69 points, the degree of depression is diagnosed as a subdepressive state or masked depression; a significant decrease in mood. If the level of depression is higher than 70 points, a true depressive state; a profound decrease in mood is diagnosed [1]. Quantitative data are expressed as follows - $M \pm \sigma$, where M- is the arithmetic mean, σ -is the standard deviation.

Research results and their discussion. The average arithmetic value was $42,53 \pm 12,54$ in the group of patients who were diagnosed with tuberculosis for the first time, specifically – $40,39 \pm 12,42$ in males and – $48,25 \pm 13,1$ in females. The average arithmetic value was $37,42 \pm 12,82$ in the group of healthy individuals who participated in the study, which means that without depression in these individuals, a decrease in mood was not observed. The V. Zung scale of the participants in the study by gender and age is presented in Table 2.

Table 2. Degree of depression severity by sex and age in newly diagnosed tuberculosis patients

Age	Tuberculosis patient scores ($M \pm \sigma$)		Scores of healthy individuals ($M \pm \sigma$)	
	Men	Women	Men	Women
Under 24	41,27 \pm 11,57	43,22 \pm 11,65	31,24 \pm 7,84	30,17 \pm 10,56
25-34	46,31 \pm 11,34	46,30 \pm 11,41	46,71 \pm 10,39	45,59 \pm 12,15
35-44	48,72 \pm 11,43	48,78 \pm 9,62	42,75 \pm 13,43	39,96 \pm 10,73
45-54	39,26 \pm 8,20	35,56 \pm 12,26	37,12 \pm 7,52	38,52 \pm 7,52
55-64	32,60 \pm 5,10	47,81 \pm 13,88	36,49 \pm 7,09	35,57 \pm 5,12

The distribution of depression in the compared groups of study participants by its presence and severity is presented in Table 3.

Table 3. Distribution of patients by the presence and severity of depression in the comparison groups, n (%)

Mental state	Tuberculosis patients		Healthy people	
	Men	Women	Men	Women
Non-depressed state	55 (70,5%)	18 (42,8%)	117 (86,6%)	40 (88,8%)
Neurogenic mild depression	18 (23,1%)	14 (33,3%)	13 (9,6%)	3 (6,6%)
Masked depression	5 (6,4%)	8 (19,04%)	4 (2,96%)	2 (4,6%)
True depressive state	-	2 (4,86%)	1 (0,84%)	-

Based on the analysis of the table, it can be noted that by the end of the second month of chemotherapy, the majority of patients with newly diagnosed tuberculosis had an optimal emotional background: 55 (70,5%) men and 18 (42,8%) women. Neurogenic mild depression was observed in 18 (23,1%) men and 14 (33,3%) women. A masked depression was observed in 5 (6,4%) men and 8 (19,04%) women. Such people are chronically tired, sleep poorly at night and are excessively sleepy during the day, their memory deteriorates sharply, and they have difficulty concentrating on a particular type of activity. Actual depression was recorded in 4,86% of the study participants, that is, in 2 women. Despite the relatively low percentage of patients in this category, close supervision by a doctor is required. Such individuals experience such conditions as a state of constant depression, a slowdown in mental and labor activity, somatoneurological disorders, a decrease in life needs, a pessimistic assessment of oneself and its place in the surrounding reality. We came to the conclusion that almost a third of patients diagnosed with tuberculosis for the first time, who were treated by the end of the second month of the intensive phase of anti-tuberculosis treatment (total 39,16%), require special medical and psychological measures to eliminate their depressive state.

The majority of healthy people did not experience any mental health problems: 117 (86,6%) men and 40 (88,8%) women. However, a small proportion of them, namely 13 (9,6%) men and 3 (6,6%) women, had a slight decrease in mood due to neurogenic causes. 13 (9,6%) men and 2 (4,6%) women had a masked depression. 1 (0,84%) male had a true depressive state. Thus, all types of depression can be observed in healthy people, but most people have a state without depression.

Conclusions. The first cases of tuberculosis were mostly young people, with fewer cases in other age groups. As a result of the study, it was found that men are more likely to contract tuberculosis than women. To identify patients in need of measures to improve their mental state, as well as patients with tuberculosis for the first time, the V. Zung method of differential diagnosis of depressive states, adapted by T. I. Balashova, can be used. In the majority of patients with

newly diagnosed tuberculosis, depressive disorders were not detected by the end of the second month of chemotherapy. Mild depression of neurotic genesis was detected in 26,6% of patients, masked depression was detected in every tenth patient, and true depression was detected in 1,6% of patients. As a result of the study, it was found that patients with tuberculosis diagnosed for the first time experience mild depression more often than healthy people. Therefore, psychological and even some medical care specially organized to overcome depressive tendencies of different degrees may be needed at the end of the second month of chemotherapy for patients diagnosed with tuberculosis for the first time.

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