
A. A. Suvorova-Grigorovich


V. V. Antsupova

УДК: 616.214-085:616.895.8

PECULIARITIES OF MENTAL DISORDERS IN PATIENTS SUFFERING FROM TUBERCULOSIS

A. A. Suvorova-Grigorovich[1], V. V. Antsupova[2]

[1] V. N. Karazin Kharkiv National University

[2] Bukovinian State Medical University

Summary. We examined 117 children aged 3-15, suffering from various forms of tuberculosis. One or another psychiatric pathology was diagnosed in 98,0% of children. The correlation between types of mental disorders and forms of tuberculosis was found. We also discovered close relationship between the severity of mental disorders and the severity of TB in children and adolescence. Early manifestation of secondary forms of tuberculosis in children with mental health problems at the age of 6–10 years was noted. The highest level of tuberculosis activity was observed in adolescents with behavioral problems; 1.5 times less frequently in patients with neurotic-like disorders; significantly less ($p \leq 0{,}001$) – in the other groups. Active form of tuberculosis is 1,5 times more likely to have occurred in children and teenagers in poor families. Features of psychiatric pathology can be used in predicting the clinical course of tuberculosis.

Key words: children, mental disorder, prognosis, tuberculosis.

Introduction

Recently, a lot of scientific papers viewed mental health problems in various infectious diseases. This is related to the fact that mental disorders make the main disease heavier and prevent adequate treatment. Mental function affects the clinical presentation of many diseases due to the enormous role of mental functions in maintaining homeostasis [1–6].

Tuberculosis is the most common infection in the world. According to the WHO, 8,7 million TB cases were registered in 2011 and 1,4 million deaths from it among those who did not have HIV, and another 430,000 deaths from HIV-associated TB [7; 8].

It is not possible to determine the true tuberculosis incidence, because some groups (homeless, illegal immigrants, alcoholics, drug addicts, etc.) are not examined. At the end of XX century the epidemiological situation of TB in USSR was sharply deteriorated as a result of the economic and environmental problems. In many regions of the former Soviet Union Tuberculosis reached epidemic proportions [9–12].

Late identification of tuberculosis cases on the background of changed mental state and, as a result, inappropriate behavior of the patient, is noted. Tuberculosis often occurs under the "mask" of various diseases, so TB patient does not feel sick. The majority of tuberculosis cases, especially its uncomplicated form, were revealed by routine investigations: in adults – fluorography, in children -X-ray after tuberculin test [13–15].

In Ukraine, the incidence of tuberculosis (IT) of children and adolescents also remains high. In Luhansk region, IT in children during the last seven years (2005–2011) also did not reduce. The lowest level was recorded in 2009 (IT – 12,5 per 100 thousand child population), the highest in 2006 (16,3 per 100 thousand child population). IT of adolescents was the highest in 2009 (50,8 per 100 thousand teenage population), and the lowest in 2011 (24,4), the average was 42,4, which is 1,3 times higher than the national figure (31,4). Incidence rate of Pulmonary tuberculosis (IPT) in children was the highest in 2011 (14,3 per 100 thousand child population); and the lowest in 2005 (9,7), in average – 11,7. In adolescents, in 2006 was recorded the highest rate (50,5); in 2011 the lowest – (21,4). The main form of tuberculosis in children was hilar lymphadenopathy, the highest and the lowest in 7 years: 35,0–66,7 per 100 thousand children, respectively. In adolescents this is the infiltrative form. The highest rate was in 2011 (71,4), and the lowest – in 2006 (55,8 per 100 thousand adolescents) [16; 17].

Mental disorders can be the reason or complication of organic disorders (psycho-somatic diseases and somatopsychic). All mental disorders are divided into non-psychotic (asthenia, vegetative disorders, dyssomnia, appetite disorders, anxiety), psychotic (hallu-cinatory-delusional syndrome) and organic (consisting of irreversible deterioration of intelligence and its prerequisites).

The purpose of the article

Studying features of tuberculosis in children and adolescents with mental disorders symptoms.

Methods used during research

117 children, aged 3 to 15, suffering from various forms of tuberculosis were studied. Age groups are formed as follows:

- Group 1 – children from 3 to 5 years, 12 (10,3%);
- Group 2 – from 6 to 9 years, 40 (34,2 %);
- Group 3 – from 10 to 12 years, 36 (31,0 %);
- Group 4 – 13 to 15 years, 14 (12,0 %);
- Group 5 – adolescents older 15 years, 15 (12,8 %).

Mental disorders were diagnosed according to ICD-10. Diagnosis was exhibited clinically. Psychodiagnostic methods were used for verification. In diagnostics of tuberculosis modern diagnostic criteria according to the protocol were also used.

Results and discussion

Tuberculosis was represented by the following clinical variants: infected with tuberculosis (IT) 43 children (36,8 %); 23 patients (26,2 %) had a tuberculin test (TT); in 28 patients (23,9 %) – Tuberculosis of intrathoracic lymph nodes (TILN), primary tuberculosis complex (PTC) in 2 children (1,7 %), acute miliary tuberculosis in 1 (0,9 %). Secondary forms of tuberculosis are presented in: infiltrative form (IF) – 13 (11,1 %) and focal tuberculosis (FT) in 7 patients (6,0 %).

In the first group:
– IT – 5 (41,7 %);
– TILN – 4 (33,3 %);
– TT – 2 (16,7 %);
– in one case – an acute miliary tuberculosis (8,3 %).

In the second group it was noted:
– IT – 18 (45,0 %);
– TILN – 10 (25,0 %);
– TT – 9 (22,5 %);
– in two cases – FT (5 %);
– in one – IF (2,5 %).

In the third group:
– IT 16 (44,4 %);
– TT – 10 (27,8 %);
– TILN – 6 (16,7 %);
– IF detected in 3 patients (8,3 %);
– PTC in 1 (2,8 %).

In the fourth group:
– TILN – 6 (42,9 %);
– IT – 3 (21,4 %);
– IF – 3 (21,4 %);
– FT detected in 2 children (14,3 %).

In the fifth group often diagnosed
– IF – 6 (40 %);
– IT – 2 (13,3 %);
– FT – 2 (13,3 %);
– TILN – 2 (13,3 %).
– PTC in one patient (6,8 %).

Thus, in the first three groups, IT is significantly noted more than other clinical variants; in the older groups – TILN (in Group 4), and IF – in 5 group. It should be noted that the secondary TB – infiltrative and focal were reported in younger children in the Groups (Groups 2 and 3) – 3 (7,5 %) and 3 (8,3 %), respectively.

As result of study these form of mental disorders were detected:

– disorders of behavior and emotions are diagnosed in most children – 53 (45,3 %);

– neurosis-like disorders – 16 patients (13,7 %);

– neurotic (Childhood Fears and Anxieties) – 35 (30,0 %);

– cognitive deficits – in 12 patients (10,3 %);

We had two children with psychiatric disorders (1,7 %).

In different types of mental disorders the following clinical forms of tuberculosis were detected:

– **in patients with the syndrome of hyperactivity** often noted IT – 28 people (52,8 %); and 2 times less TT – in 15 patients (28,3 %); TILN – 9 patients (17,0 %); FT in 1 child (1,9 %);

– **in patients with neurotic disorders** there were detected 2 patients with TILN (12,5 %), 6 with TT (37,5 %), and IT – 8 (50,0 %);

– **in patients with Pseudoneurotic disorders** there were often detected TILN – 16 (45,7 %); 2 times less – IF 8 (22,9 %); and more rarely IT – 6 (17,1 %);

– **in patients with cognitive deficits** observed – FT (5,7 %); TT – 1 (2,9 %); PTC – 1 (2,9 %) patients;

– **in teenagers with disorders of behavior and emotions** generally marked the secondary TB: IF in 8 patients (66,7 %), FT – 3 (25,0 %); TILN 1 patient (8,3 %).

All the children without mental disorders were diagnosed with TT (100 %).

Patients with more severe manifestations of mental disorders had more severe tuberculosis, and detected secondary forms.

46 children and teenagers with tuberculosis (39,3 %) were from poor families, 21 (46,8 %)

– with social problems; and 25 (53,2 %) – from low-income families. The active form of tuberculosis was detected in 47 patients (40,2 %) – IF, FT, TILN. The proportion of active TB among children from families with social problems was 57,1 %; among the poor – 36,0 %.

Conclusions

- Tight relationship between the severity of mental disorders and the severity of TB in children was found.
- There was noted early manifestation of secondary forms of tuberculosis in children with mental disorders from the 2 and 3 age groups.
- Active form of tuberculosis is 1.5 times more likely to occur in children and teenagers in poor families.
- The highest level of tuberculosis was observed in teenagers with behavior disorders; 1,5 times less frequently in patients with neurotic disorders; significantly less ($p \leq 0,001$) – in the other groups.
- Features psychic sphere can be used in predicting of tuberculosis.

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ОСОБЛИВОСТІ ПСИХІЧНИХ РОЗЛАДІВ У ДІТЕЙ, ЩО СТРАЖДАЮТЬ НА ТУБЕРКУЛЬОЗ

Г. О. Суворова-Григорович[1], В. В. Анцупова[2]

[1]Харківський національний університет імені В. Н. Каразина

[2]Буковинський державний медичний університет

Анотація. Нами обстежено 117 дітей у віці від 3 до 15 років, які страждають на різні форми туберкульозу. У 98,0 % дітей виявлено певну патологію психічної сфери. Проведено кореляцію між видами психічних розладів і формами туберкульозу. Встановлено тісний взаємозв'язок між особливостями психічних розладів і тяжкістю перебігу туберкульозу в дітей та підлітків. Відзначено ранній прояв вторинних форм туберкульозу в дітей з психічними розладами у віці 6–10 років. Найвищий ступінь активності туберкульозу відзначено у підлітків з порушеними формами поведінки; в 1,5 рази рідше – у пацієнтів з неврозоподібними розладами; в інших груп зареєстровано найменшу активність туберкульозу (p≤0,001). Активні форми туберкульозу у 1,5 рази частіше виявляються у дітей та підлітків із малозабезпечених сімей. Особливості патології психічної сфери можна використовувати у прогнозуванні перебігу туберкульозу.

Ключові слова: діти, психічні розлади, прогноз, туберкульоз.

ОСОБЕННОСТИ ПСИХИЧЕСКИХ РАССТРОЙСТВ У ДЕТЕЙ, СТРАДАЮЩИХ ТУБЕРКУЛЕЗОМ

А. А. Суворова-Григорович[1], В. В. Анцупова[2]

[1]Харьковский национальный университет имени В. Н. Каразина

[2]Буковинский государственный медицинский университет

Аннотация. Нами обследованы 117 детей в возрасте от 3 до 15 лет, страдающих различными формами туберкулеза. У 98,0 % детей выявлена та или иная патология психической сферы. Проведена корреляция между видами психических расстройств и формами туберкулеза. Выявлена тесная взаимосвязь между выраженностью психических расстройств и тяжестью течения туберкулеза у детей и подростков. Отмечено раннее проявление вторичных форм туберкулеза у детей с психическими расстройствами в возрасте 6–10 лет. Самая высокая степень активности туберкулеза отмечена у подростков с нарушенными формами поведения; в 1,5 раза реже – у пациентов с неврозоподобными расстройствами; в других группах активность туберкулеза минимальна (p≤0,001). Активные формы туберкулеза в 1,5 раза чаще встречаются у детей и подростков из малообеспеченных семей. Особенности патологии психической сферы можно использовать в прогнозировании течения туберкулеза.

Ключевые слова: дети, психические расстройства, прогноз, туберкулез.

Суворова-Григорович Анна Александровна – к.мед.н., доцент, Харьковский национальный университет имени В. Н. Каразина, г. Харьков, Украина; e-mail: grigorovichaa@ukr.net.

Суворова-Григорович Ганна Олександрівна – к.мед.н., доцент, Харківський національний університет імені В. Н. Каразіна, м. Харків, Україна; e-mail: grigorovichaa@ukr.net.

Anna Suvorova-Grigorovich – PhD in Medicine, Associated Professor, V. N. Karazin Kharkiv National University, Kharkiv, Ukraine; e-mail: grigorovichaa@ukr.net.

Анцупова Вита Вячеславовна – к.мед.н., ассистент кафедри, Буковинский государственный медицинский университет, г. Черновцы, Украина; e-mail: vitaantsupova@ukr.net.

Анцупова Віта Вячеславівна – к.мед.н., асистент кафедри, Буковинський державний медичний університет, м. Чернівці, Україна; e-mail: vitaantsupova@ukr.net.

Vita Antsupova – PhD in Medicine, Assistant Professor, Bukovinian State Medical University, Chernivtsi, Ukraine; e-mail: vitaantsupova@ukr.net.