

drug sensitivity. The prevalence of lung tissue damage was determined, the cellular microenvironment and histological features of arterioles, capillaries and venules were studied in the focus of the inflammatory process. For the morphometric study, pieces of lung tissue were obtained from the zones of destruction, active inflammation, the walls of pulmonary caverns with qualitative and quantitative determination of the cellular composition.

Results: the most significant morphological changes were identified for persons suffering from MDR tuberculosis.

The groups differed significantly in the number of specific granulomas with different cellular composition. In patients with MDR, the prevalence of a specific lung lesion with the severity of the caseous layer in the cavern and foci of tuberculosis infection was determined long-existing granulomas with proliferation of fibrous connective tissue around them, but without the phenomena of fibrosis. It is worth noting that in all cases we observed increased permeability and the phenomenon of vasculitis. However, in cases with MDR tuberculosis, the lesion was more common and combined not only destruction of the endothelium, but also thrombosis of large and small vessels. The material from patients with preserved drug sensitivity had characteristics of an exudative-productive process with a less pronounced inflammatory response, while pulmonary parenchyma fibrosis was observed. While streets with poly-resistance, we observed a pronounced exudative-alterative reaction combined with deep damage of the microcirculatory bed.

Conclusion: the results of the study show that the forms of chronic fibrocavernous tuberculosis of the lungs under study morphologically differ in a number of more pronounced specific cell-tissue changes in the lung tissue in the multidrug-resistant form of the disease. The severity of the course and severity of specific inflammation is indicated by the presence of granulomas with central caseous necrosis, granulomas containing Pirogov cells, long-lasting granulomas with proliferation of fibrous connective tissue around them, lymphoid cell clusters in fibrous tissue, as well as a large number of lymphoid cells in the pericavitary zones in the granulation and fibrous layers of the cavity. It is likely that the revealed distinctive morphological features of the granulomatous process in this form of the disease are due to the peculiarities of the local immune response that is formed under the influence of a large number of virulent MBTs in the focus of specific inflammation.

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FEATURES OF LONG TERM SUBFEBRILE IN CHILDREN

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Key words: long subfebrile condition, children.

Summary: Subfebrile conditions of different etiologies are widespread among children. In recent years, the appeal for a long subfebrile condition has increased significantly and the frequency of visits to a children's polyclinic about a long-term temperature response is 10-15%. The article reflects the results of the analysis of the case histories of children with a long subfebrile condition, who were examined and treated in the department of the day hospital of the Blagoveshchensk State Children's Clinical Hospital. It has been revealed that adolescents with hereditary complications in psychosomatic pathology, who have a history of minimal brain dysfunction, vegetatively stigmatized, have marked changes on the electroencephalogram, are subject to thermoneurosis on the background of emotional loads.

Urgency: Subfebrile conditions of different etiology are widespread among children. A third of calls to district pediatricians are associated with complaints of an increase in body temperature (often after an acute respiratory infection), in a significant part of children the subfebrile condition takes a prolonged course. In recent years, the treatment for a long subfebrile condition has increased significantly and the frequency of visits to a children's polyclinic about a long-term temperature response is 10-15% [1,2,3].

The measurement of body temperature is easily performed by the parents of the child and determines their anxiety when there is a rise in temperature, especially long-term flow.

Diagnostic criteria for long-term subfebrile fever (fever of unknown origin) are an increase in skin tempera-

ture above 37.6, measured in both axillary regions at 3 measurements per day, observed for 14 days and longer in children with an unidentified cause of fever after a history, clinical examination, standard laboratory tests.

Diagnostic search for the cause of long subfebrile condition is the most significant in pediatrician's work and requires professional skill and individual approach in each case.

Fever can be a manifestation of many diseases and pathological conditions—from the violation of thermoregulation as a result of infectious, somatic, hematological diseases, to mental and autonomic disorders. In most cases, the pediatrician must independently understand the cause of the fever and make the correct diagnosis.

Objective: To determine the characteristics of prolonged subfebrile condition in children.

Objectives: To conduct an analysis of complaints, anamnestic data, vegetative status, the results of additional methods of studying children with prolonged subfebrile condition; to reveal functional features of the vegetative status.

MATERIALS AND METHODS: 17 adolescents (11-15 years old) admitted to a hospital with a preliminary diagnosis were examined: Fever of unknown origin (ICD-10 code R50).

Depending on the degree of increase in body temperature in adolescents, fever is regarded as subfebrile (37.2-38.0 degrees).

It was noteworthy that adolescents well tolerated fever (with an increase in body temperature the child remained active), there was no chills, in some patients subfebrile condition was detected after acute respiratory infection (ARI), most children in psychoemotional loads took place (parting with close people, transferring to another school, starting school, an increased requirement for the child by the parents), normalizing the temperature at night (at night and after sleep the indices were normal, and then it increased as activity increased child), the lack of an adequate increase in heart rate with an increase in body temperature, the lack of antipyretic drugs and the concomitant treatment of ARI. The psycho-emotional features of children (suspiciousness, anxiety, touchiness, accentuation on their condition), increased anxiety of mothers, which is typical for such children [6,7,8] are noted.

Among the boys, 87.5% prevailed. Depending on the duration of the febrile period: in 25% of children, up to 45 days, in 75% for more than 45 days.

After a comprehensive examination, which included a clinical blood test, urine, feces, an enzyme immunoassay for TORCH infection; biochemical blood test; a swab from the nose, throat, evaluation of the tuberculin test; instrumental studies (electroencephalography (EEG), rheoencephalography, ultrasound examination of the heart, internal organs, kidneys, thyroid gland, electrocardiogram) was diagnosed: a syndrome of autonomic dysfunction (SVD), thermoneurosis.

Violations of thermoregulation are a characteristic sign of permanent and paroxysmal vegetative disorders in childhood [4,5]. Neurogenic hyperthermia (thermoneurosis) is caused by a violation of thermoregulation due to a disorder of either the posterior (sympathetic) part of the hypothalamus or the anterior (parasympathetic) department. Disorders of thermoregulation in SVD can proceed according to the type: hyperthermic crisis, when the body temperature rises to febrile figures (sometimes to hyperthermia) against the background of emotional experiences (fever, mild headache), the temperature decreases spontaneous sympatheticotone thermoneurosis; subfebrile condition, which can last for months, chilliness is noted (poor tolerance of low temperatures, drafts, wet weather) -a preparatory thermoneurosis.

In the following we compared 2 groups of children: 1-adolescents with thermoneurosis (17); 2-adolescents with autonomic dysfunction syndrome without fever (25 adolescents). All children were registered with a neurologist, a cardiologist with a diagnosis: a syndrome of autonomic dysfunction for 2-5 years. The analysis of the anamnestic data showed that in the 1 group the pregnancy course was complicated in the mothers of adolescents. More than half of the adolescents of group 1 were observed by a neurologist after a year with minimal brain dysfunction (IDC), while in the second group of these children less than half.

When assessing the genealogical anamnesis in both groups, more than half of the children had a hereditary burden on psychosomatic pathology (85.4% and 79.2%, respectively). At the time of admission to adolescents in both groups of acute or exacerbation of the chronic inflammatory process was not noted, which was confirmed by laboratory research methods:

Significant differences in the results of clinical en-for blood, biochemical blood analysis, a general urine analysis was not revealed. When examining the respiratory system, chronic tonsillitis was found in 12% of children in group 1, in 16% in 2 groups. By results of US of a thyroid gland-pathology it is not revealed.

Next, we revealed the following features of vegetative homeostasis. Clinical evaluation of the initial vegetative tone was carried out according to the algorithm of Osokina GG, measured in the sum of the scores. 1 group significantly more significant signs of sympathicotonia ($p < 0.05$) and vagotonia ($p < 0.05$). According to the results of cardiointervalography index load at rest was higher in group 1, which indicates an increase in their sympathetic activity of the autonomic nervous system [8].

EEG results in more than half of adolescents (94.1%) revealed moderate or close to moderate diffuse changes in the bioelectrical activity (BEA) of the brain, signs of pronounced irrigation of stem structures at the diencephalic level, which indicates the interest of the cortex and nonspecific subcortical structures. Where-

as in the 2nd group, changes in the EEG predominated in the form of light changes in the brain BEA.

Thus, adolescents with hereditary complications in psychosomatic pathology, having a history of WDC, vegetatively stigmatized, having pronounced changes on the EEG on the background of emotional loads are subject to thermoneurosis. It is important to make a differential diagnosis in a timely manner, because over time, when the child and his parents do not see the effect of the treatment (a/b, antiviral, immunomodulators), their behavior becomes alarming (obsessive temperature measurements), which leads to the child's fixation on his defect, it forms psychogenic reactions of a phobic, depressive nature.

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CARDIORESPIRATORY SYSTEM IN CHILDREN

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The abstract. The state of the cardiorespiratory system in school-age children was studied. The most informative characteristics describing the indices of anthropometric, spirometric and hemodynamic studies were used. It was determined that children with macrosomatic type of physique can be referred to a group of persons with reduced functional reserves of the cardiorespiratory system and smaller compensatory capacities of the organism in response to physical stress. Establishment of interrelation between morphofunctional features of children of different types of constitution allows further elaboration of the fundamental basis for fundamentally new approaches to donor diagnosis of cardiorespiratory system disorders and assessment of their general health.

Key words: children, cardiovascular system, somatotype.

Introduction. Adaptability and predisposition to various diseases correlate with belonging to certain constitutional types. Morphological expression of the constitution is the somatotype - it is an integral indicator characterizing the psychological, physical and functional capabilities of the human body [4]. Based on his knowledge, you can accurately predict the rate of maturation and aging of the organism, the characteristics of reactivity to a variety of environmental influences. The use of indicators of the cardiorespiratory system and assessment of the degree of tension of its work make it possible to assess the functional state of this system under specific conditions of existence. The most universal indicator of the functional state of the body and its compensatory-adaptive functions is the cardiorespiratory system involved in adapting children to environmental conditions and in shaping the body's response to the influence of various factors [3,5,7].

To assess the functional state of the child's body uses a wide range of physiological indicators. A special significance is attached to the analysis of the functional interaction of its various systems. The connection of the respiratory system with other vital systems of the body is known in the provision of its energy needs. The respiratory system is a subsystem of a single functional system of transport and oxygen consumption [1]. Changes in the level of functioning of any of its component links lead to a reorganization of the work of these subsystems, ensuring the achievement of a useful result - adequate supply of tissues with oxygen, using its adaptive potential [2]. The aim of the study was to study the features of the respiratory system in children with different somatotypes.

Material and methods. The study was conducted among children of secondary school age (10-14 years). A total of 76 healthy children (I-II health groups) participated in the study. From the whole set of measured and calculated indicators, the most informative characteristics describing the parameters of anthropometric, spirometric and hemodynamic studies were selected. The obtained data array contained the values of mass, body length, chest circumference, heart rate (heart rate, beats / min), blood pressure (BP, mmHg), vital capacity (LIV, ml); calculated - the vital index (GI), the actual GIV (FVC,%), the Ruthier-Dickson index, etc. The division of adolescents into groups of micro, meso and macrosomatics was carried out according to the scheme of RN. Dorokhova and I.I. Bahraka. Statistical processing of data was carried out using Microsoft Excel spreadsheets and STATISTICA 10.0 statistical processing software.