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NEW APPROACHES TO THE REHABILITATION OF OFTEN AILING CHILDREN

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Ailing children – a special group of dispensary observation, which requires special attention and approach of the pediatrician, a group of children who, in the future, very quickly implement a chronic pathology as a rule, to there is already a genetic predisposition. Socio-economic instability in society, a change in the ordinary routine of life, changing value orientations contribute to the deterioration of family functioning and it is reflected in the number of children and occurrence of chronic diseases at an earlier age.

Unstable psychological climate in the family is the cause of many problems, including those related to the impairment of interaction adult-child.

Among these children is much more frequently chronic diseases of ENT-organs, respiratory system, vegetative-vascular dystonia, diseases of the gastrointestinal tract etc. in frequently ill children identified the lack of reserve opportunities of an organism, the intensity of the processes of the immune response that complicates the course of inflammatory process and making the necessary timely rehabilitation. FIC is often the early and preschool and younger school age. Assessment of the adaptation period usually is performed by the functional status of various systems using the General adaptation syndrome. At the same time, it is believed that display properties that reflect the character of nonspecific adaptation processes, protective and adaptive activity of the whole organism, has a WBC.

The aim of this work was to study the health of children of preschool age in the period of adaptation to preschool educational institutions and correction of violations.

Materials and methods. A comprehensive examination of children with frequent respiratory pathology, visiting preschool educational institution № 14 in the city of Blagoveshchensk (n=82),. In the dynamics of the state of children's health, laboratory data analysis, psychological testing of children and parents (mom) to determine the level of anxiety and the nature of family education. Statistical processing of the obtained data was carried out using "STATISTICA 6.0".

The results and discussion. When examining groups of children with frequent respiratory morbidity, marked psycho-emotional features, neurological reactions (irritability, tearfulness, phobias, anxiety, worry, anger, and other signs of regressive behavior), indicating adaptation. The duration of neurotic reactions was prolonged for several months, which hindered the adaptation to child care. More than 2/3 of children showed longer adaptation period (more than 6 months).. In the structure of complaints in children, this group was dominated by autonomic manifestations: headaches, irritability, cardialgia, fatigue, memory loss, obsessive sighs, reduced interest in learning. Of psycho-emotional features noted high proportion of children with severe personal and reactive anxiety.

The low level of reactivity indicates a violation in the activities of the neuro-immune-endocrine complex of the body, in the period of adaptation to preschool institution. Was identified a direct correlation between low reactivity and the frequency of exacerbations of chronic diseases, between stress at home, in preschools and frequency of respiratory diseases.

One of the factors that significantly affect the health of children, is the increased anxiety of the parents. Anxiety is among the most common the treatment of parents to a psychologist, while in recent years the number of such requests has increased substantially. But, unfortunately, parents rarely associate the anxiety and health status of the child. And the problem of occurrence of psychosomatic diseases directly related to high, not adequate level of anxiety. Among the many causes of child anxiety one of the main violations of the parental relation to the child, which lead to permanent psychological trauma of children. Mom, as a very important man in my life, unwittingly, creates sometimes a lot of prerequisites for the development of anxiety and fears in children.

Many pediatricians and psychologists have noted that certain personality traits of the mother (anxiety, neurotic) can cause serious irregularities in the mental development of the child. Inadequate, ambiguous attitude to the child by the mother, these authors largely associated with the personal characteristics of the mothers than with the child's illness. The surveyed mothers frequently ill preschoolers 4-6,5 years (n=65), marked by high trait anxiety (78%), which reflects the inner conflicts and tensions of the mother. As a rule, the disease is able to react to their own problems. The direct relationship between the severity of trait anxiety

of the mother and frequency of respiratory diseases in children. Most mothers tend in a situation of frustration to give extrapunitive reaction (its share of responsibility for committing the act denied or downplayed), so mom how would compensate for their vulnerable position. More than 2/3 of all examined mothers ' low self-acceptance and a negative attitude ("I'm a bad mother", "I do not know how to educate, etc."). According to the scale prevailing feelings" most women said "negative" (fear, resentment, anger, displeasure, and anxiety). Guilt (unconscious or conscious) is associated for the majority of mothers with child's illness, however, the responsibility for recovery is vested in others: doctors, relatives, caregivers (94% mothers). As a result, between a child and mother develop inappropriate relationships that are manifested in the fact that when rejecting, infantilizing against the mother, the child becomes dependent on her, and almost always needs her attention and support. High anxiety is often diagnosed in truly ill children (72%), indicating that the disruption in parent-child relations and, in General, about the disharmonious parenting style.

Child-parent relations are characterized by great emotional significance for both child and parent. They are inherent ambivalence: the desire to "keep" next to a child and at the same time apply to child requirements, appropriate to the age, that is, as a maturing individual. Often parents (moms) tend to keep those relations at an earlier age (infancy), forgetting that a child is still a form of interaction to become inadequate. The inevitable process of growing up entails a worsening of the difficulties encountered in the interaction of child-parent and irregularities in the formation of a child.

Conclusions.This interaction of the mother and the baby continues to generate anxiety in the baby, which makes him sensitive, immature and susceptible to the formation of psychosomatic disorders. Therefore, despite the powerful medication, the effectiveness of the treatment of frequently ill children remains a challenge.

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3D-RECONSTRUCTION OF THE MUCOUS MEMBRANE OF THE TRACHEA WITH THE USE OF DUAL BEAM FIB/SEM QUANTA 3D FEG

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Abstract As a result of 3D-reconstructions information about the topology of compartments of ciliated epithelial cells of the mucous membrane of the trachea of rats and the spatial geometry of the ultrastructure, intracellular structures visualized, reconstructed fine structure of submicroscopic surface epithelium of the trachea details - cilia and microvilli was obtained.

Key words: 3D-reconstruction, ciliated cells, surface epithelium of the mucous membrane of the trachea.

The characterization of tissue morphology, cellular and subcellular microstructures is performed conventionally by studying thin slices of tissue preparations. However, recently the new methods of volume microscopy and 3D-histology become increasingly important for 3D structural imaging providing more complete morphological picture by yielding spatial relations of structural elements in cellular architecture as well as tissue surfaces and interfaces.

In order to understand the processes of particle motility on epithelial surface, e.g. bacterial infection initial stages, we need clear 3D imaging of living tissue interfaces (living – nonliving as well).

The present study aims to optimize visualization technique, tissue preparation and 3D-reconstruction of trachea epithelial layers. We also applied multiscale 3D correlative microscopy methods that put high-resolution electron microscopy images and volume reconstructions in context of X-ray microtomography and light microscopy data.

Scanning electron microscopy and focused ion beam (FIB/SEM) in small dual beam systems (SDB) utilizing Slice&View procedure was applied to yield accurate 3D models of the tissue.

While reconstructing a microvolume of mouse trachea epithelia in several instances bacterial bodies were identified in close proximity or entangled with epithelial cilia. 3D imaging of external microbial organisms interacting with epithelial cilia provides insights into protective function of tracheal epithelium with regard to bacterial infection. Tissue fixation captured bacteria on different stages of epithelial penetration, allowing us to study dynamics of bacterial infection process.