SECTION 22.
MEDICAL SCIENCES AND PUBLIC HEALTH

**COMPREHENSIVE DIAGNOSIS OF NERVOUS SYSTEM DAMAGE IN OLDER CHILDREN WITH BRONCHIAL ASTHMA**

*Abstract:* Bronchial asthma is one of the widespread, sometimes difficult to control diseases of childhood, has a constant tendency to increase, often leads to limitation of life activity and social capacity, formation of disability and deterioration of the quality of life. Therefore, primary (prevention of the risk of bronchial asthma) and secondary (prevention of risk realisation) prevention of this disease is an urgent, but difficult to resolve today.

**Introduction.** The most successful prevention of the disease can be in early or preschool age, when the predisposition to the disease is formed or the disease is in the initial stage of its development. However, the absence at this age of a typical clinic of the disease, low manifestation of symptoms, difficulty in determining the external respiratory function (ERF), lead, as a rule, to late diagnosis. That is why paediatricians, especially primary health care doctors and general practitioners, need modern, non-invasive and informative methods of diagnosing predisposition to the disease, methods of monitoring the effectiveness of preventive measures and additional criteria indicating the formation of the disease in children of early and preschool age.

Bronchial asthma is a disease in the pathogenesis of which many organs and systems are involved. The basis of pathology is a specific allergic inflammation in the respiratory tract. The functional unity of the respiratory and circulatory systems determines that the main pathophysiological shifts occur in the cardio-respiratory system. In recent years, much attention has been paid to the study of the role of the central nervous system (CNS) and especially the autonomic nervous system (ANS) in the etiology and pathogenesis of bronchial asthma in children. Many authors consider bronchial asthma as a psychosomatic disease, in the genesis of which the leading role is played by the functional instability of the subcortical structures of the brain and ANS regulating the respiratory complex, associated with congenital or acquired CNS disorders.

However, mostly all studies of autonomic imbalance and psychological status in bronchial asthma are carried out in older children (from 7 years of age), when the disease already has a "sufficient history". The search for reliable prognostic markers of predictors of the development and progression of the disease continues, on the basis of which risk groups are selected for the occurrence of asthma of various degrees of risk. However, in our opinion, objective (measurable
and calculable) criteria of the functional state of the organism are insufficiently used in the diagnosis of predisposition to the disease. In addition, the lack of comprehensiveness in the conducted studies does not allow to reveal the full range of intra- and intersystem links in the formation of the disease with a variety of pathogenetic lines, such as bronchial asthma. It is known that in accordance with the principle of conjugate functioning of organism systems, "deviation from the optimal level of one or another parameter is a stimulus to a directed redistribution in certain ratios of values of all other parameters of the functional system".

**Conclusions:** Thus, that is why the establishment of multiple intersystem interactions in the formation of bronchial asthma in the child in early and preschool age seems relevant, because in the features of interaction of functional systems of homeostatic level reveal the earliest, prognostically significant signs.

**References:**