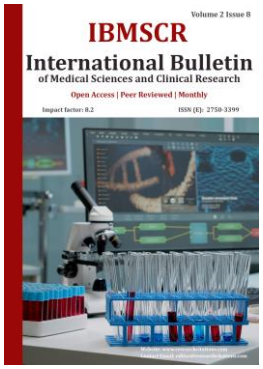

SOME TYPES OF BACKGROUND DISEASES WITH BRONCHOPULMONARY PATHOLOGIES IN CHILDREN

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Summary. This article discusses some types of diseases that develop against the background of bronchopulmonary pathologies in children.
Key words: bronchopulmonary pathologies, dysbacteriosis, deficiency anemia, pneumonia

Premorbid diseases in children with bronchopulmonary pathologies such as acute bronchitis and acute pneumonia play an important role and, in turn, complicate their course [1]. According to a number of researchers, complications of premorbid pathologies die mainly in young children [2]. The gut microbiota is known to influence local immune homeostasis in the gut and shape the developing immune system towards elimination of pathogens and tolerance to autoantigens. Although the lungs have long been considered sterile, recent data using sequencing techniques have confirmed that the lower respiratory tract has its own local microbiota. Since then, there has been increasing evidence that local respiratory and gut microbiota play a role in acute and chronic lung disease in children.

Purpose of the study: To study some types of background diseases, with bronchopulmonary pathologies in children.

Materials and methods: the premorbid background was studied in 37 children with acute bronchitis and acute pneumonia who were hospitalized in the pathology department of young children and the pulmonological departments of the clinic of the Tashkent Pediatric Medical Institute (TashPMI).

Research relevance: There is increasing evidence that the respiratory microbiota of the lungs changes during bronchopulmonary diseases. Whether this is a cause or an effect cannot always be unequivocally determined, but in some cases, lung dysbiosis has been found to be associated with worse disease outcome. In addition, the gut microbiota plays a role in respiratory disease, as dysbacteriosis in early childhood has been shown to increase the risk of lung infections.

High rates of morbidity and mortality in children from respiratory pathology determine the need to find evidence-based measures to optimize the diagnosis, treatment and prevention of diseases of the respiratory system. At present, numerous epidemiological studies have proven the relationship between the disease of the lower respiratory tract transferred in early childhood and the development of chronic pulmonary disease in adults in the future. The solution of such problems at the regional level is not possible without a deep assessment of the situation, including clarification of the incidence rate, the study of the structure of nosologies in the territory, the specifics of the provision of medical care, etc. In this regard, conducting special studies with the study of age-related characteristics of respiratory pathology is relevant and significant.

In the early diagnosis and prevention of progressive pathology, a special place is given to risk factors that play an important role in the genesis of diseases and, under certain conditions, can be decisive in the prognosis of the pathological process. An essential fact for predicting the risk of chronic bronchopulmonary pathology was the recognition of the effect on the respiratory function of the sex of the child, which indicates congenital / genetic factors affecting the growth and development of the lungs, regardless of damaging factors in the intrauterine or early postnatal periods of life. At the same time, there is no quantitative assessment of the degree of participation of the main risk factors in the development of major bronchopulmonary diseases in childhood and, therefore, scientific research in this direction will significantly increase the specificity and effectiveness of preventive measures.

Determining the concentration of cytokines and clarifying their role in the inflammatory response in various diseases is the subject of ongoing discussions. Most methods for determining inflammation activity in the airways are invasive; from these positions, of particular interest is the analysis of exhaled air condensate in bronchopulmonary pathology and the possibility of this method in determining the activity of the inflammatory process.

In the currently existing problem of polypharmacy in the diagnosis and treatment of bronchopulmonary diseases in children, it is important to use a scientific approach in establishing uninformative and unreasonable methods of managing patients. At the same time, the concept of the development of the pulmonological service in Russia determines the need for a pharmacoeconomic analysis of the costs of diagnosis and treatment in the subjects of the federation, the importance of introducing modern medical standards, and the importance of optimizing treatment and diagnostic measures.

Results: in 37 patients treated in the TashPMI clinic, deficiency anemia was detected in 10 (27%) of 37 children. Of these, with acute pneumonia, deficiency anemia was found in 5 (50%) children, and the number of children with acute bronchitis in this pathology was 4 (40%). In children with acute bronchiolitis, deficiency anemia was found only in 1 (10%) child. Protein-energy deficiency also occurred in 10 (27%) of 37 children, of which the number of children with acute bronchitis and acute bronchiolitis was the same, that is, 3 (30%) children, respectively. The highest percentage of children 4 (40%) for protein-energy malnutrition was found in children with acute pneumonia. Rickets was found in 13 (35.1%) of 37 children, of which children with acute pneumonia predominated, accounting for 6 (46%). An average of 4 (31%) for rickets was found in children with acute bronchitis. The lowest percentage 3 (23%) was in children with acute bronchiolitis.

Conclusions: The study of the premorbid background in children with bronchopulmonary pathologies showed that protein-energy deficiency and rickets of varying degrees were most common in children with acute pneumonia, and deficiency anemia, as a background disease, prevailed in children with acute bronchitis.

References:

1. Acute respiratory diseases in children: treatment and prevention // Scientific and practical program of the Union of Pediatricians of Russia. Moscow: International Foundation for Maternal and Child Health. 2002. 69 p.

2. Blokhin B.M. Respiratory diseases in children. In: Practical Guide to Children's Diseases. Vol. 9 / edited by V.F. Kokolinoyi A.T. Rumyantsev. M.: Medpraktika, 2007. 616 p.

3. Ardatskaya M. D., Minushkin O. N. Diagnosis of the state of intestinal microflora and differentiated correction of its disorders: Methodological guide for doctors, heads of health authorities and medical institutions. - M., 2005. - 48 p.
4. Babak S.L., Gorbunova M.V., Malyavin A.G. Broncho-obstructive syndrome in the modern practice of a general practitioner. // Therapy. - 2017. - No. 1. - S. 47 - 53.
5. Gushchin I. S. Allergenic permeability of barrier tissues is a strategic problem of allergology. // Pulmonology. - 2006. - No. 3. - S. 5 -13.