

Characteristics of Broncho-Obstructive Syndrome in Children

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ABSTRACT

The article is about epidemiological features and medical and social significance of broncho-obstructive syndrome in early age patients. In children of early and preschool age, up to 50% of cases of acute respiratory viral diseases of the upper respiratory tract are accompanied by broncho-obstructive syndrome, the main cause of which is acute obstructive bronchitis.

Introduction

The prevalence of broncho-obstruction in children is in permanent increase at any age and in global. Based on many studies, about 50% of children have at least one episode of broncho-obstruction in the first six years of life. Risk factors for broncho-obstruction in children include not only intrinsic, but a lot of extrinsic factors which could accelerate beginning of early symptoms. Globally, there is increase in first hospitalization with broncho-obstruction in children.

In recent years, in all developed countries of the world, an increase in respiratory pathology has been recorded in the structure of the general morbidity of children. Acute respiratory diseases occupy a leading place among all pathologies of childhood. According to the literature, in children of early and preschool age, up to 50% of cases of acute respiratory viral diseases of the upper respiratory tract are accompanied by broncho-obstructive syndrome, the main cause of which is acute obstructive bronchitis. Acute obstructive bronchitis— acute bronchitis, in which a clinical picture of diffuse bronchial obstruction syndrome is observed. It is characterized by an acute onset, low-grade fever, mucous rhinitis, a short dry cough with a quick transition to a wet cough, and the presence of intoxication. Broncho-obstructive syndrome in this disease, as a rule, increases by 2–4 days in the form of shortness of breath of an expiratory nature without pronounced tachypnea, sometimes distant wheezing, a boxy tone of sound during percussion, with auscultation - prolonged exhalation, as well as the presence of dry (musical or whistling) sounds. and various wet rales on both sides

It has been established that in 30–50% of cases obstructive bronchitis takes a protracted,

undulating or recurrent course. Especially in recent years, the incidence of acute obstructive bronchitis with a protracted and recurrent course among young children has increased significantly. Recurrent bronchitis is understood as the presence of repeated episodes of acute bronchitis up to 2–3 or more times per year, occurring against the background of respiratory viral infections with a duration of clinical manifestations of 2 weeks or more. Recurrent obstructive bronchitis was identified as an independent clinical variant of recurrent bronchitis in 1981 by A.Ya. Osin and L.A. Matveeva. According to modern concepts, the recurrent course of obstructive syndrome contributes to a decrease in pulmonary function, increases bronchial hyperreactivity and increases sensitivity, and also creates conditions for the implementation of a generalized reaction with the formation of chronic forms of bronchitis or bronchial asthma. Bronchial asthma is a chronic allergic inflammation of the bronchi, accompanied by their hyperreactivity and periodic attacks of difficulty breathing as a result of reversible bronchial obstruction caused by bronchoconstriction, hypersecretion of mucus, and swelling of the bronchial wall. Issues related to bronchial obstruction syndrome in young children have remained relevant for many years and have been of interest to researchers and practitioners, which is associated with the heterogeneity of its genesis, the similarity of pathogenetic mechanisms and clinical manifestations and, as a consequence, with the difficulties of differential diagnosis and uncertainty of prognosis. At the same time, broncho-obstructive syndrome is only a collective term that is not an independent nosological diagnosis, therefore, in each specific case the issue of the underlying disease must be resolved. The predominant cause of BOS against the background of acute respiratory viral infections is obstructive bronchitis or initial manifestations of bronchial asthma. As is known, acute obstructive bronchitis is a manifestation of ARVI and is characterized by diffuse damage to bronchi of different sizes. Many children, against the background of acute viral infections of the upper respiratory tract, may experience repeated episodes of obstructive bronchitis due to bronchial hyperreactivity, which are not accompanied by the development of bronchial asthma and, as a rule, stop upon reaching early school age. On the contrary, quite often recurrent bronchitis is the debut of asthma, the diagnosis of which is made much later - after the onset of typical attacks. Considering the fact that obstructive bronchitis is typical for preschool children, how to evaluate the first-time occurrence of biofeedback against the background of ARVI in older children? Like obstructive bronchitis or bronchial asthma? Differential diagnosis between obstructive bronchitis and bronchial asthma in early childhood is often complicated due to the same clinical picture, similarity of radiological, functional and laboratory, including immunological, indicators. And given the significant growth of this pathology in recent years, the existing problem is of particular relevance. Bronchial asthma in 80% of cases develops in children already in the first year of life, but such patients are diagnosed much later, and BOS against the background of ARVI is regarded for a long time as obstructive bronchitis. Late diagnosis of bronchial asthma with underestimation of data contributes to the progression of the disease, increased frequency of exacerbations and, as a consequence, an increased risk of disability in children. The difficulties of the problem being studied are due to the fact that today a complex of clinical, laboratory and instrumental studies does not allow for reliable differential diagnosis between obstructive bronchitis, which occurs in children against the background of ARVI under certain conditions, and bronchial asthma, a genetically determined disease. In recent years, respiratory pathology with a recurrent course in young children has become increasingly relevant in our country.

Conclusion. The relevance of the problem is determined by: a noticeable increase in the number of patients with this pathology, the similarity of pathogenetic mechanisms and clinical manifestations of BOS, a variety of trigger factors, difficulty in differential diagnosis, and unclear prognosis. Preventing the formation of recurrent obstructive bronchitis is a difficult task for every pediatrician. Considering that the diagnosis of recurrent bronchitis is possible in the presence of episodes of bronchial obstruction at least three times a year, it is considered justified

to search for new diagnostic methods in order to timely assess the risk of developing recurrent obstructive bronchitis in children and carry out its active prevention.

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