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RISK FACTORS FOR THE OCCURRENCE AND DEVELOPMENT OF RECURRENT BRONCHITIS IN CHILDREN

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ABSTRACT

The article presents the study of risk factors for the occurrence and development of recurrent bronchitis in children. Analysis of anamnestic data of the examined children showed that there is a high prevalence of risk factors for the development of recurrent bronchitis. The analysis of the prevalence of risk factors for the development of recurrent bronchitis in the examined children showed the presence of a high proportion of premorbid conditions both in the pedigree and in the mother of the child.

Keywords: recurrent bronchitis, children, risk factors.

For several decades, respiratory diseases have occupied the leading place in the overall structure of childhood morbidity [2,8,9], the share of which, according to official statistics, is 50–73% [1,2,3,8]. Respiratory diseases currently occupy one of the leading places in the structure of pediatric morbidity and remain an urgent problem of pediatrics. One of the most common lesions of the lower respiratory tract is bronchitis, which develops in 50% of children [1, 2].

In the structure of acute and recurrent diseases of the respiratory tract in children, one of the main reasons for outpatient visits to a pediatrician is bronchitis, the highest incidence of which is registered before the age of 3 years, and then from 9 to 15 years. In recent years, there has been an increase in the number of children who often suffer from acute respiratory infections [6,7,8]. According to numerous European studies, the group of frequently ill children makes up almost 5% of the population of children aged 3 to 6 years. Recurrent or recurrent respiratory infections, exceeding the adaptive capabilities of the child's body, can lead to a disruption in the functioning of the mechanisms of elimination of infectious agents and lead to the development of chronic pathology [4,5].

The infectious syndrome was manifested by the recurrent nature of the course of acute and chronic infectious and inflammatory diseases of various etiology and localization [4].

The multifactorial nature of the development of RB in children is widely discussed in the scientific literature. The main risk factors for the development of RB in children are: genetic predisposition to respiratory diseases and their long-term course; adverse environmental factors, climatic and social conditions; infection with an association of pathogens and their persistence with a decrease in predominantly local bronchial reactivity; inefficiency of the evacuation capacity of the bronchial tree [1,2,9].

Important local factors in the protection of the respiratory tract are mucus secreted by goblet cells and epithelial cells, which includes antibacterial lysozyme, lactoferrin, secretory immunoglobulin A (sIgA) and bactericidal substances of bronchial secretions: lysozyme, interferon, lactoferrin, transferrin, α-1-antitrypsin, as well as alveolar macrophages and lung

surfactant, which also contributes to the mechanical removal of particles, protecting the bronchi and lungs from external agents [1,2,7,8].

In order to prevent and improve the effectiveness of treatment of recurrent bronchitis, it is especially important to identify risk factors. The origins of this pathological condition are often in early childhood, in infancy, and are often due to the state of health of the mother before and during pregnancy.

Thus, the cited literature data indicate that the etiopathogenesis of RB is complex, not all of its links have been sufficiently studied. Further research in this direction will allow us to optimize the criteria for predicting the risk of RB in children. The persistent course of the disease requires mutual understanding between the child's parents and the doctor in compliance with consistent rehabilitation programs to improve the patient's health, and therefore the search for optimal treatment and rehabilitation technologies that allow for timely correction of bronchial patency disorders is an important task for pediatricians and pulmonologists.

OBJECTIVE

To study the risk factors for the occurrence and development of recurrent bronchitis in children.

METHODS

A total of 83 children with RB aged 1 to 3 years with recurrent bronchitis in the exacerbation stage (1st grade), including 52 boys and 31 girls, and 20 patients with the same disease in remission (2nd grade), including 12 boys and 18 girls, were monitored. The criterion for selecting children in the examination group was the established diagnosis of recurrent bronchitis. Depending on the sex, boys prevailed among the patients we examined.

Analysis of the material shows that patients with recurrent obstructive bronchitis prevailed among the patients examined. It is known that the obstructive component is mainly inherent in children with an allergic disposition. Among the patients we examined, 31 children had an allergic disposition: drug allergy in 10 (10.8%) patients, food allergy in 21 (22.6%).

Characteristics of concomitant diseases in the examined patients

Diagnosis	Abs.	%
PROBE	4	4,3
Residual organic encephalopathy	1	1,07
Asthenoneurotic syndrome	2	2,14
Subatrophic pharyngitis	1	1,07
Chronic Eating Disorder	12	12,9
Thymomomegaly	1	1,07

As can be seen from the table, most of the children had comorbidities. It is known that one of the main risk factors for the redication of the disease is the presence of foci of chronic infection in the child. 35 (37.6%) of the patients we observed had chronic diseases. In the vast majority of mothers of the sick children we examined, the initial level of health was unsatisfactory: more than half of the mothers had anemia, half had chronic pyelonephritis and thyroid pathology,

and had a high level of chronic tonsillitis. Naturally, it must be assumed that during pregnancy the condition of mothers deteriorated even more. This is confirmed by the following data.

The proportion of maternal patients with anaemia increased from 62.4% to 89.2%, an additional 20 sick mothers with chronic pyelonephritis were identified during pregnancy, 73 (78.5%) mothers suffered a viral infection during pregnancy, and 1/3 of pregnant women had functional disorders of the cardiovascular and nervous systems. All of the above-mentioned pathological conditions could not but affect the course of pregnancy and childbirth.

In more than half of all mothers of the children examined by us, pregnancy was complicated by toxicosis, in 29% pregnancy proceeded with manifestations of gestosis, in more than 1/3 of mothers nephropathy of pregnancy was noted. The pathological course of pregnancy caused a high proportion of pathologies in childbirth: caesarean section in 40.9%, rapid labor in 22.6%, prolonged labor in 17.2%, umbilical cord entanglement in 12.9%, premature placental abruption in 10.7%, etc.

More than half (65.6%) of the children examined by us in the neonatal period were diagnosed with perinatal encephalopathy, 21.5% of children suffered intracranial birth trauma, 14 (15.1%) children were born prematurely, purulent-septic diseases were noted in 16 (17.2%) of the children examined by us in the neonatal period.

The pathology of the newborn period could not but affect the formation of the child's health, his growth and development. The presence of a high specific gravity of the premorbid background in the patients we examined is natural.

The main diagnosis was accompanied in 95.7% of cases by anemia of a hypochromic nature, rickets was noted in 43.0% of patients, allergies in 35.5%, and chronic eating disorders in 12.9%. It is known that the origins of a child's health lie in his pedigree.

In 47.3% of the children we examined, relatives in the family were often sick with colds, 39.7% of children among the closest relatives were diagnosed with chronic bronchopulmonary pathology, and in 53.8% of children the family background was aggravated by allergic diseases.

Along with the above-mentioned risk factors, we have also analyzed the causal aspects. Among the patients we examined, there was a high prevalence of such risk factors as frequent diseases in the first year of life, antibiotic therapy before the child's admission to the hospital, early mixed and artificial feeding, treatment of the mother with antibiotics during pregnancy, etc. It should be noted that only 10.7% of children received eubiotics for prophylactic purposes during antibiotic therapy.

In the first year of life, 24.7% of the children examined were naturally fed, 43.1% were mixed and 32.2% were bottle-fed. At the time of the survey, 40.8% were fed according to their age. Social status is no less significant: only 19.4% of the examined patients had good living conditions and sufficient material security. It is known that one of the predictors of normal growth, development and a good level of health of a child is the degree of education of the parents. Among the children we examined, 22.6 per cent of fathers and 10.8 per cent of mothers had higher education.

CONCLUSIONS

Our analysis of the prevalence of risk factors for the development of recurrent bronchitis in the examined children showed the presence of a high proportion of premorbid conditions both in

the pedigree and in the mother of the child, which led to the birth of a child with a predisposition to the disease, which was realized in the absolute majority already in the first year of life.

The search for the causes of frequent respiratory diseases in children and the study of the mechanisms of disease development have revealed a number of factors that increase the risk of developing many pathological conditions. In this regard, timely and high-quality diagnosis of RB, as well as the correct choice of treatment tactics, is one of the ways to prevent recurrent respiratory infections in children.

The study of risk factors for the development of recurrent bronchitis made it possible to establish that the absolute majority of mothers of the patients examined by us had an unsatisfactory initial level of health: more than half of the mothers had anemia, half had chronic pyelonephritis and thyroid pathology, there is a high rate of chronic tonsillitis. During pregnancy, the condition of mothers deteriorated even more: the proportion of maternal patients with anaemia increased from 62.4% to 89.2%, an additional 20 sick mothers with chronic pyelonephritis were identified during pregnancy, 73 (78.5%) mothers suffered a viral infection during pregnancy, and 1/3 of pregnant women had functional disorders of the cardiovascular and nervous systems.

In more than half of all mothers of the children examined by us, pregnancy was complicated by toxicosis, in 29% pregnancy proceeded with manifestations of gestosis, in more than 1/3 of mothers nephropathy of pregnancy was noted. The pathological course of pregnancy led to a high proportion of pathologies in childbirth: caesarean delivery in 40.9%, rapid labor in 22.6%, prolonged labor in 17.2%, umbilical cord entanglement in 12.9%, premature placental abruption in 10.7%, etc.

In 65.6% of the children examined by us in the neonatal period, perinatal encephalopathy was ascertained, 21.5% of children suffered intracranial birth trauma, 14 (15.1%) children were born at term, purulent-septic diseases were noted in 16 (17.2%) of the children examined by us in the neonatal period. The pathology of the newborn period could not but affect the formation of the child's level of health, his growth and development. The main diagnosis was accompanied in 95.7% of cases by anemia of a hypochromic nature, rickets was noted in 43.0% of patients, allergies in 35.5%, and chronic nutritional disorders in 12.9%. Analysis of the pedigree of children with recurrent bronchitis revealed 47.3 per cent have relatives who are often ill with colds, 39.7 per cent have chronic bronchopulmonary pathology and 53.8 per cent have allergic diseases.

Along with the above-mentioned risk factors, we have also analyzed causal aspects specific to the development of RB. Among the patients we examined, there was a high prevalence of such risk factors for the development of RB as frequent diseases in the first year of life (84.9%), antibiotic therapy before the child's admission to the hospital (100%), early mixed and artificial feeding (75.3%), treatment of the mother with antibiotics during pregnancy (22.5%), etc. It should be noted that only 10.7% of children received eubiotics for prophylactic purposes during antibiotic therapy.

Social status is no less significant: only 19.4% of the examined patients had good living conditions and sufficient material security. It is known that one of the predictors of normal growth, development and a good level of health of a child is the degree of education of the

parents. Among the children we examined, 22.6 per cent of fathers and 10.8 per cent of mothers had higher education.

Our analysis of the prevalence of risk factors for the development of recurrent bronchitis in the examined children showed the presence of a high proportion of premorbid conditions both in the pedigree and in the mother of the child, which led to the birth of a child with a predisposition to the disease, which was realized in the absolute majority already in the first year of life.

REFERENCES

1. A. E. Abaturov, Y. K. Bolbot, I. L. Vysochina, N. M. Tokareva. Frequent respiratory diseases and recurrent bronchitis in children.- Kyiv, 2011.
2. V.L.Tatochenko. Bronchitis in children. Handbook for Doctors /Ed. Moscow., 2004. – 89 p. (in Russian).
3. Zakirov I.I., Safina A.I. Respiratory manifestations of gastroesophagelal reflux in children. Bulletin of Modern Clinical Medicine 2016; № 9.- C. 46-52.
4. Samsygina G.A., Bogomilsky M.R., Kazyukova T.I., Prevention and Therapy of Acute Respiratory Diseases Using Homeopathic Remedies. J. Pediatrics, 2008. Volume 87.- No. 6.- pp. 92-96.
5. Shamsiev F.S., Diveeva A.S., Amilova Kh.U. Frequently sick children. Metod.rekomend., Tashkent, 2007, 35 p.
6. Yusupova G.A., Zakirova U.I., Tolipova N.K., Latipova Sh.A., Tursunboev A.K. Role of predictors in the formation of recurrent course of obstructive bronchitis in children. Bulletin of the Tashkent Medical Academy. -2022. No 3.182-186c.
7. A non-dairy probiotic's (poi) influence on changing the gastrointestinal tract's microflora environment. Brown AC, Shovic A, Ibrahim SA, Holck P, Huang A. // Altern Ther Health Med. -2005, -v. 11(1). –p. 58-64.
8. Akikusa JD., Kemps AS. Clinical correlates of response to pneumococcal immunization.// J. Paediatr. Child Health., 2001; 37(4): 382.
9. Dysbiosis of the Intestine in the Genesis of the Immune Failure in Children with Recurrent Bronchitis. Karimdzhanov I.A.,Yusupova G.A., Iskanova G.Kh., Israilova N.A. //Eurasian Medical Research Periodical. Volume 18 | March 2023. p 49-54.