Abdullaeva D.A., assistant
Department of Pediatrics
Umarova M.A. older
lecturer at the Department of Pediatrics,
Andijan State Medical Institute
Andijan, Uzbekistan

CLINICAL AND PATHOGENETIC VARIANTS OF BRONCHIAL OBSTRUCTIVE SYNDROME IN INFANTS

Resume. Currently, it is important to study the immunopathological mechanisms underlying the development of various phenotypes of wheezing, since the bronchoobstructive syndrome is accompanied by an active inflammatory process of an infectious or allergic nature, leading to structural changes in the tissues of the lungs and bronchi.

Exclusion criteria from the study: age over 1 year, newborns; children from socially disadvantaged families and orphanages; verified diagnoses: cystic fibrosis, foreign body of the respiratory tract, stenosinglaryngotracheitis, congenital stridor, congenital malformation (bronchopulmonary system, heart and blood vessels), atypical infection (Chlamydia, Mycoplasma).

Key words: bronchoobstructive syndrome, acute bronchitis, bronchopulmonary system, Chlamydia, Mycoplasma.

Абдуллаева Д.А., ассистент
кафедры педиатрии
Умарова М.А. старший
преподаватель кафедры педиатрии,
Андижанский государственный медицинский институт
Андижан, Узбекистан

КЛИНИКО-ПАТОГЕНЕТИЧЕСКИЕ ВАРИАНТЫ БРОНХООБСТРУКТИВНОГО СИНДРОМА У ДЕТЕЙ ГРУДНОГО ВОЗРАСТА

Резюме. В настоящее время актуально изучение иммунопатологических механизмов, лежащих в основе развития различных фенотипов свистящего дыхания, поскольку бронхообструктивный синдром сопровождается активным воспалительным процессом инфекционной или аллергической природы, приводящего к структурным изменениям тканей легких и бронхов.

Критерии исключения из исследования: возраст старше 1 года, новорожденные; дети из социально-неблагополучных семей и домов ребенка; верифицированные диагнозы: муковисцидоз, инородное тело дыхательных путей, стенозирующий ларинготрахеит, врожденный стридор, врожденный порок развития (бронхолегочной системы, сердца и сосудов), атипичная инфекция (Chlamydia, Mycoplasma).

Ключевые слова: бронхообструктивный синдром, острый бронхит, бронхолегочной системы, Chlamydia, Mycoplasma.

Relevance. Currently, it is important to study the immunopathological mechanisms underlying the development of various phenotypes of wheezing, since the bronchoobstructive syndrome is accompanied by an active inflammatory process of an infectious or allergic nature, leading to structural changes in the tissues of the lungs and bronchi. Identifying the features of respiratory tract inflammation, taking into account the cellular composition of nasal secretions, local and systemic cytokine concentrations, and determining the type of inflammation, will allow us to consider the possibility of

using a non-invasive technique (nasal flushes) as an additional criterion for the differential diagnosis of bronchial obstructive syndrome in young children.

The purpose of the study. To identify clinical and pathogenetic variants of bronchoobstructive syndrome in infants based on neural network and logistic regression analysis, taking into account anamnestic features, risk factors and predictors of inflammation to optimize differential diagnosis and prognosis of the disease course.

Research methodology and methods. The objects of the study were children aged 1 to 12 months who were admitted to the hospital with bronchial obstructive syndrome (wheezing syndrome). The control group consisted of practically healthy children included in the study after a conversation with their parents, with informed consent. Criteria for inclusion in the study: infants admitted to the hospital with the following diagnoses: acute bronchitis with obstruction (J20. 9), bronchiolitis (J21.9). All children included in the study received voluntary informed consent from their parents.

Exclusion criteria from the study: age over 1 year, newborns; children from socially disadvantaged families and orphanages; verified diagnoses: cystic fibrosis, foreign body of the respiratory tract, stenosinglaryngotracheitis, congenital stridor, congenital malformation (bronchopulmonary system, heart and blood vessels), atypical infection (Chlamydia, Mycoplasma).

Criteria for inclusion in the control group: practically healthy infants, from healthy parents, with a favorable course of pregnancy in mothers, with a gestation period of more than 37 weeks. and a birth weight of more than 3000 g.; during the period of newbornness-without features; children who were not ill in the first year of ARVI, the absence of BOS in the anamnesis; with an unburdened personal and family allergic history. The study was conducted in three stages.

The results of the study. When assessing the features of the clinical picture of BOS in infants, differences in the frequency of occurrence of a number of clinical parameters were revealed. Thus, in BOS of infectious origin, hyperthermia above 38°C

was significantly more frequent and was observed in 44 (17.8%) children, the duration of obstruction was more often from 3 to 5 days, which was significantly more frequent in comparison with other groups. In BOS against the background of BPD, the absence of temperature reactions was registered more often (in 13 (68.4%) children), and bronchial obstruction lasted more than 7 days more often. in comparison with BOS of infectious origin ($p<0.05$). When assessing risk factors for children under bare allergic Genesis significant were: "urticaria and angioedema in history" was observed in 9.1% of children, OSH 8,333 (DI=2,207-31,467), ($p<0.05$); "allergic diseases in relatives" were observed in 6.5% of children, OR=5,952 (DI=1,455-24,353); FRENCH such as "the relatives of the BA II line relatives (grandparents)" was noted in 11.7% of children 0111=4,018 (D= 1,604-10,064) and met 4 times more often in comparison with a group of barefoot infectious origin ($p<0.05$).

For barefoot on the background of BPD is characterized risk factors: "pneumonia in history" was noted in 10.5% of children (0111=5,842, D=1,262-27,036), $p<0.05$; "obstructive bronchitis in history" - at 31.6% of children under 0111=2,337, (DI=1,143-4,779); "bronchiolitis in history" - in 10.5% of children, $p<0.05$ and 8 times more common in children of this group in comparison with bare infectious Genesis; "underweight" from a child you have to 63.2% children, with OR=6,373 (DI=3,975-10.218), p<0,0!; "Smoking mother" was noted in 31.6% of children, while the figure made up of OSH: OSH=2,062 (DI=1,015-4,187); "threats of miscarriage in the first and second halves of pregnancy" and occurred in 47.4% and 31.6% of children with OR 4,382 (CI=2,489-7,713) and OR 4,572 (CI=2,116-9,879), respectively; "chronic bronchitis of the first line of kinship (parents, siblings)" was 10.5% of cases, 0111=5,842 (CI=1,262-27,036).

When analyzing the cellular composition of nasal secretions, it was found that in the nasal secretions of children of the second group (BOS of allergic origin), eosinophils were significantly more frequently detected ($p<0.001$) - in 53% (95%

CI=39-67). For the rest of the cell composition, no differences were found between the target groups. When comparing the main indicators of the immunogram (cellular and humoral links) unidirectional changes in the immune response were revealed, regardless of the variant of BOS, in comparison with the control.

When analyzing the content of cytokines in peripheral blood, there is a tendency to increase the concentration of 1B-111a, 1B-2,1 B-4, 1B-6, 1B-8, 1B-10 in comparison with the control. There were no significant differences between the parameters of cytokines in the peripheral blood serum between the target groups. When analyzing the level of cytokines in nasal flushes, a significantly high concentration of 1B-4, as a key mediator of the development of atopic inflammation, was noted in the group of BOS of allergic origin in comparison with all groups ($p<0.05$)

Conclusion. The revealed high correlation between the level of cytokines in nasal flushes and blood serum allows us to recommend a non-invasive method for determining the cytokine profile in nasal flushes as a priority for infants. Significant clinical and immunological predictors for variants of bronchoobstructive syndrome in infants with high predictive ability in terms of sensitivity and sensitivity were identified. Specificities: "Barefoot infectious Genesis" - the presence of hyperthermia, duration barefoot 3-5 days, relief bronchodilators BOS, 1B-8 serum (below 5 percentile); "bare allergic Genesis" atopic dermatitis, a history of urticaria, angioedema in history, relatives BA I lines, 1B-2 serum (above 95 percentile), 1B-4 flush (above 95 percentile).

REFERENCES

1. Avdeev V.G. Questions of pathogenesis, diagnosis and treatment of celiac // Clinical Pharmacology and therapy. - M, 2004.-JSTe 1.- P. 34-38.

2. Akhmedova I.M. The disturbance of growth in chronic diseases of the small intestine in children //Abstract of scientific-practical conference: Pediatrics of Uzbekistan: Reforming and strategy of the development".-Tashkent,2007.-P.69.

3. Belmer S.V. Celiaca//Rus.med.jum.- M.,2003.-T.4, N23.- P. 188-190.

4. Kamilova A.T. Model of medical-social rehabilitation in children invalids Uzbekistan on the example of patients with celiac disease. Med.jum.Uzbekistana.2006, N 3.-P.44-47.

5. Kamilova A.T. Enzimopathy of the small intestine in children (epidemiology, differential diagnosis, treatment: Abstract Dis. ... d-ramed.nauk. - Tashkent, 2001.- 37 p.

6. Kamilova A.T., LevitskayaYu.V., DustmukhamedovaD.Kh., Bakhtiyarova N.A., Charishnikova O.S. Correction of the disorders of oxidative phosphorylation in the model of chronic enteral insufficiency//Jomalteoreticheskoy I klinicheskoymedicine.-2011, N 4.-P.60-62.

7. Parfenov A.I., Krums L.M. The modem conception of celiac disease//Rus.med.jum. - M.,2003.-T.5N 2.-P.24-30.

8. Rubin V.I., Larskiy E.G., Orlova L.S. Biochemical methods of investigation in the clinic / Ed.by Menshikova V.B.-1980.-P.316.

9. Sukhorukov V.S. Disturbance of the cellular energy metabolism in children // Russ.VestnikPerinatologii I pediatrii.-M., 2002,- N 5.-P.44-50.

10. Sukhorukov V.S. Heterogeneity and clinical-morphological heterogeneity of mitochondrial pathology in children: Abstract. Diss. ... d-r med.nauk.-M.,1998.