AJPMHS GLOBAL RESEARCH NETWORK

AMERICAN Journal of Pediatric Medicine and Health Sciences
Volume 02, Issue 03, 2024 ISSN (E): 2993-2149

Risk Factors for the Development of Broncho-Obstructive Syndrome in Children

Akhmedova Dilbar Yusufzhanovna,
assistant of the department 1- Pediatrics and Neonatology
Kayumova Amira Temurovna
student at Samarkand State Medical University
Samarkand State Medical University, Samarkand, Uzbekistan

Abstract: Broncho-obstructive syndrome in young children is quite common and the causes of its development in most cases are varied. Acute obstructive bronchitis remains one of the most common and severe diseases of the respiratory system in children [1,2,5]. It is reported that the incidence of BOS in children in our region clearly depends on the season, region, child's age and epidemiological situation. [6,8,10]. In recent years, recurrent bronchitis with bronchial obstruction syndrome has become widespread due to the difficulty of early diagnosis, the long remission period and the ineffectiveness of anti-relapse treatment, frequent relapses, and the transition of the disease to bronchial asthma. [7,9,12].

Key words: bronchoobstructive syndrome, children, risk factors.

The aim of research work. To analyze risk factors for the development of broncho-obstructive syndrome in children in respiratory diseases in order to improve diagnosis and predict the course of the disease.

Material and method. 84 children under the age of 3 years with acute obstructive syndrome and acute bronchitis, who were in the emergency pediatric and pediatric intensive care units of the Samarkand branch of the Republican Scientific Center for Emergency Medical Care, were examined. Group I consisted of 42 patients with acute obstructive syndrome, group II included 42 children with acute bronchitis who did not have bronchial obstruction. Anamnestic, clinical, laboratory and instrumental data were studied.

Genealogical, biological and social anamnesis, premorbid and family background describing the health status of the family and the features of the development of the child in the ante-, postnatal and first years in research groups of patients and their parents to determine the factors that cause the development of broncho-obstructive syndrome analysis was conducted. Based on data from a retrospective analysis of medical records of patients in the main and control groups, we analyzed the clinical characteristics of BOS. Data were obtained from clinical examination and parent interviews.

During pregnancy, in the mothers of patients anemia is at a high frequency (58.3%), taking drugs (55.0%), ARVI (33.3), pathological births (29.2%), less cases of toxicosis of pregnancy (27.5%), development of chronic diseases (23.30%), abortions and miscarriage (25.0% and 18.3%).

The determined frequency of indicators of obstetric and gynecological anamnesis of mothers can be unfavorable factors in the development of BOS and will be discussed in more detail below.

The results of the research showed that premature and premature babies have acute obstructive bronchitis (76.7%), early transfer to artificial feeding (65.8%), recurrence of respiratory infections 5 times a year (38 .3%) and 6 or more recurrences (39.2%), episodes of bronchoobstruction are observed in children under 1 year (60.0%), 1 per year (33.3%), 2 (27.5 %) and 3 times (39.2%) the development of BOS clinical symptoms indicates the possible influence of premorbid background factors on the development of BOS diseases.

Analysis of medical records showed that most patients were admitted to the department on the 2.8±0.8 day of illness. In our studies, the majority of children were boys, whose tendency to develop bronchial obstruction is associated with the anatomical and physiological characteristics of the child's body, in particular, the later development of the respiratory tract, large lung sizes and relatively narrow bronchi. The ratio of boys to girls was 1.4:1.2. The average age of those examined was 17.5±2.4 months, while in children, broncho-obstructive syndrome in the period from one to three years was detected 3.9 times more often than in children under one year of age and 1.3 times more often than in patients older than three years. Data from the analysis of anamnestic and clinical data in both groups showed that in the ante- and intranatal periods in children with broncho-obstructive syndrome, chronic foci of infection were detected in the mother in 18 (26.4%), asphyxia of newborns in 9 (13.2%), in the postnatal period: rickets in 21 (30.8%), perinatal lesions of the central nervous system in 15 (22.1%), atopic dermatitis in 32 (50.0%), group "frequently ill children" 22 (32.3 %), mixed and artificial feeding in 30 (46.9%), lack of vaccination in 7 (10.3%), lymphatic-hypoplastic diathesis in 11 (16.1%), non-adaptive formula feeding in 9 (13.2%) children accordingly. Hereditary burden of bronchopulmonary pathology was observed in 12 (12.6%) children with broncho-obstructive syndrome.

Discussion of results. The results of the investigation showed that the anamnestic data and the frequency of clinical signs mostly correspond to the generally accepted manifestations of BOS in children. At the same time, the identified differences in the frequency of the disease from the "classic" course in children indicate the need for a detailed study, taking into account the characteristics of the course of BOS in children, which will be analyzed in the next chapters of the work.

Analysis of the characteristics of the somatic history of patients by gender showed that boys accounted for 56.7% and girls for 43.3%, which indicated that boys were more prone to respiratory diseases, corresponds to the data of the literature showing the tendency [3,4,11].

Conclusions. Thus, the analysis showed that the most common predisposing factors of acute broncho-obstructive syndrome are: chronic foci of infection in the mother during pregnancy, atopy in the postnatal period, transfer to mixed and artificial feeding, and frequently ill children.

Literature:

1. Andersen A.B. Use of prescription paracetamol during pregnancy and risk of asthma in children: a population-based Danish cohort study / A.B. Andersen,D.K. Farkas, F. Mehnert et al. // Clin Epidemiol. - 2012. - № 4. - P. 33-40.
2. Baets F., Pauwels R., Schramme I. IgG subclass specific antibody response in reccurent bronchitis. Arch. Dis. Child. 1991;Vol. 66, № 12: 1378 -1382
3. Bai L, Su X, Zhao D, et al. Exposure to traffic-related air pollution and acute bronchitis in children: season and age as modifiers. J Epidemiol Community Health. 2018;72(5):426-433. doi:10.1136/jech-2017-209948

4. Barnett ML, Linder JA. Antibiotic prescribing for adults with acute bronchitis in the United States, 1996-2010. JAMA. 2014;311(19):2020-2022.doi:10.1001/jama.2013.286141
5. Becker L.A., Hom J., Villasis-Keever M., van der Wouden J.C. Beta2-agonists for acute cough or a clinical diagnosis of acute bronchitis. Cochrane Database Syst Rev. 2015;2015(9):CD001726. Published 2015 Sep 3.
6. Benscoter DT. Bronchiectasis, Chronic Suppurative Lung Disease and Protracted Bacterial Bronchitis. Curr Probl Pediatr Adolesc Health Care. 2018;48(4):119-123.
7. Bush A. Recurrent respiratory infections. Pediatr Clin North Am. 2009; 56(1): 67–100, x. DOI: 10.1016/j. pcl.2008.10.004
8. Chang AB, Oppenheimer JJ, Weinberger MM, et al. Management of Children With Chronic Wet Cough and Protracted Bacterial Bronchitis: CHEST Guideline and Expert Panel Report. Chest. 2017;151(4):884-890.
9. Fainardi V., Santoro A., Caffarelli C. Preschool Wheezing: Trajectories and Long-TermTreatment. Front Pediatr. 2020 May 12;8:240. doi: 10.3389/fped.2020.00240. PMID:32478019; PMCID: PMC7235303
10. Ibatova Sh.M., Mamatkulova F.Kh. Features of the course of acute obstructive bronchitis in children // Problems of biology and medicine. - 2020. No. 3. Volume. 119. - pp. 178-181.
11. Truntsova E.S., Avasova G.Z. Bronchitis in young children (features of diagnosis and treatment). Astrakhan: Federal State Budgetary Educational Institution of Higher Education "Astrakhan State Medical University of the Ministry of Health of the Russian Federation", 2017. 122 p.
12. Zakirova U. I., Shamsiev F. M. Efficiency of rehabilitation of children with recurrent obstructive bronchitis using kinesiohydrotherapy. Pediatrics. No. 1. 2021.s. 55-59