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CURRENT CLINICAL FEATURES OF DIFFERENT FORMS OF BRONCHOPULMONARY DYSPLASIA   
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Summary: We observed 131 children (269 cases) in age from 1 month to 3 years with a diagnosis of bronchopulmonary dysplasia. For a new form of bronchopulmonary dysplasia characterized by the formation of acute bronchiolitis (p <0.001) with respiratory failure II-III degree (p <0.001) during the acute illness. Clinical markers of this form of the disease in remission can be considered as breathlessness during exercise (p <0.01), cyanosis in anxiety (p <0.01), compliant places part of the chest in breathing (p <0.01), a detailed lower thoracic (p <0.001). Aggravation classical bronchopulmonary dysplasia characterized by frequent obstructive bronchitis (p <0.001), bronchiolitis (p <0.01), pneumonia (p <0.01) were found markers obstructive-restrictive respiratory failure during remission classical bronchopulmonary dysplasia: dyspnoea at rest and during exercise (p <0.01), barrel chest (p <0.01) and the involvement of compliant places the chest in the act of breathing (p <0.001), launched the lower aperture (p <0.001), barrel chest (p <0.05), dullness, interspersed with box sound (p <0.01), hard breathing (p <0.001), and crepitus (p <0.01). For patients with bronchopulmonary dysplasia term exacerbation manifested by frequent pneumonia (p <0.001), which was associated with impaired neuro-respiratory drive (r = 0,678, p <0.05). Clinical markers of bronchopulmonary dysplasia during term remission of the disease are breathlessness (p <0.01), lack of increase in body weight (p <0.001), tachypnea (p <0.01), cyanosis (p <0.001), dullness in the lower chest (p <0.001), severe breathing (p <0.001). Crackles and respiratory depression are not characteristic of bronchopulmonary dysplasia term.

Introduction: Patients with bronchopulmonary dysplasia (BPD) is difficult to determine the characteristic signs of respiratory failure due to mild new form of BPD on the one hand and the presence of comorbid disease in children with BPD term on the other. Local doctors imperfectly aware of peculiarities of BPD, especially in the absence of a generally accepted protocol for diagnosis and treatment of disease, and the literature data are contradictory. At the same time, a patient with BPD have lesions of the lower respiratory tract, which appears on the aggravation of diseases - pneumonia or obstructive bronchitis.

In the domestic and foreign literature data on clinical markers of various forms of BPD, isolated and non-systematic. On the recommendations of the American Thoracic Society characteristic features of BPD are considered tachypnea, tachycardia, increased work of breathing (retractions of the chest, blowing the nose wings) episodes hypoxia and poor in addition to body weight [3]. According to the Russian Respiratory Society bronchopulmonary dysplasia occurs with dyspnea, tachypnea, and oxygen depended and crackling in the lungs [3]. When a new form and with less severe symptoms of classical data may be hidden in nature. As a result, the child does not have adequate clinical supervision, happens "loss" to the outpatient diagnosis. Acute respiratory infections in these children are treated without regard to the basic disease, leading to prolonged aggravation, and in some cases calls for mechanical ventilation. Thus, at present, due to the transformation course of bronchopulmonary dysplasia common clinical signs of the disease is not enough. Further research should be directed at identifying markers of different forms of the disease, for proper clinical examination of the patient.

Objective: improving the diagnosis of bronchopulmonary dysplasia by studying clinical markers of various forms of bronchopulmonary dysplasia in children.

Materials and methods: The study was conducted at the Department of Pediatrics and Neonatology №1 Kharkiv National Medical University (Head of Department - G.S.Senatorova) and the regional center for diagnosis and treatment of bronchopulmonary dysplasia in children KZOZ "Kharkiv Regional Children's Hospital" (Head - H .R.Muratov).

The observation was located 131 children (269 cases) aged 1 month to 3 years with a diagnosis of bronchopulmonary dysplasia. Of the 269 observations with a new form of bronchopulmonary dysplasia was 111 (41.2%), with the classical form of BPD - 121 (45%) of the BPD term 37 (13.8%) cases. As a comparison group observed 26 children (42 observations) were born prematurely, had respiratory disorders, but did not form bronchopulmonary dysplasia. The diagnosis of bronchopulmonary dysplasia was established by the International Classification of Diseases 10 view (code R27.0).

A history data gathered through special questionnaires, which were determined by the presence and frequency of exacerbations per year, dyspnea and tachypnea at rest and during worry dynamics in addition to body weight, the presence of sleep apnea. On examination, attention was drawn to cyanosis, retraction of the chest when breathing, chest shape, its stiffness palpation, percussion and markers auscultative.

Indicators calculated using parametric statistics using the «Statistica-6".

Results and discussion. The survey and observation of the children we have been determined the frequency of exacerbations of bronchopulmonary dysplasia per year in patients with various forms of BPD. Exacerbation was considered the presence of acute obstructive bronchitis, bronchiolitis, or pneumonia.

Equally often with observations on the "new" form of BPD, children of the comparison group were transferred pneumonia and obstructive bronchitis (p> 0.05).

Pay attention significantly more frequent in children with bronchiolitis new (p <0.001) and classical (p <0.01) forms of bronchopulmonary dysplasia. Patients with bronchiolitis against the background of the new BPD often have respiratory failure II-III levels with the need respiratory support than comparison group patients (p <0.001). We noted feature of pneumonia in children with new BPD, significantly more than in the comparison group ran across pneumonia with bronchial obstruction syndrome (p <0.01), the presence of clinical and instrumental signs of pulmonary circulation (p <0.001).

In the patients with the classical form of BPD was observed more frequently than obstructive bronchitis pneumonia (p <0.001). For classic and new bronchopulmonary dysplasia was characterized by obstructive lesions of small bronchi and bronchioles, and significant respiratory failure during exacerbation of the disease. Thus, when these forms prevailed bronchial obstruction. It is a high probability of obstructive symptoms in children with classic and new forms of BPD need to look for when preventive measures are intended to remission of the disease.

Clinical observation of the conduct of the Kharkiv regional center for diagnosis and treatment of bronchopulmonary dysplasia argue about the need for prevention of severe obstructive disorders in patients with classic and new form of BPD in the presence of one or more episodes of bronchial obstruction syndrome in a quarter (p <0.05).

For patients with bronchopulmonary dysplasia term characteristic were significantly more frequent pneumonia than in the other groups (p <0.001) and a similar high incidence of obstructive syndrome as well as in patients with classic BPD (p> 0.05). The observed correlation between an abnormal neuro-respiratory drive and frequency of pneumonia (r = 0,678; p <0.05) in patients with BPD term. In our opinion, the treatment of acute respiratory disease should be directed at the prevention of bacterial complications, ensure adequate ventilation and drainage of lung function in these children.

You can see that respiratory infections of the lower respiratory tract a character for children with bronchopulmonary dysplasia than patients in the comparison.   
We analyzed the results of examination of patients. Markers of a new form of bronchopulmonary dysplasia was panting after physical activity (p <0.01), the equivalent of which in infants is breast or anxiety; presence of acrocyanosis in anxiety (p <0.01), involvement of seats compliant chest (p <0.01) and lower aperture deployed (p <0.001). Thus, when viewed from a child with a new form of bronchopulmonary dysplasia by to monitor the patient needs more attention should be paid to the detection of restrictive type of respiratory failure: the nature of shortness of breath, skin color during exercise and shape of the chest.

In patients with classic BPD occurred clinic obstructive-restrictive disturbances in respiratory failure, dyspnea at rest and during exercise (p <0.01), barrel chest (p <0.01) and involvement compliant sites (p <0.001) deployed aperture lower (p <0.001), blunting, alternating with box sound (p <0.01) and hard breathing (p <0.001) and crepitus (p <0.01).

The largest share clinical signs of respiratory failure as restrictive and obstructive type was in children with BPD term. Along with the relaxed breathing and crackling for patients with this form of the disease is not characteristic of that seen as a dominance of diffusive ventilation and perfusion disorders in these children. Clinical signs of restriction in the BPD term dependent on the presence of diffuse pneumofibrosis (r = 0,898; p <0.01).

Conclusions:   
1. For new form of bronchopulmonary dysplasia typical manifestations of acute bronchiolitis (p <0.001), respiratory failure II-III levels (p <0.001) during the acute illness. Clinical markers of this form of the disease in remission can be considered as shortness of breath during physical activity (p <0.01), acrocyanosis in anxiety (p <0.01), involvement of seats compliant chest (p <0.01) and lower scanning aperture (p <0.001).

2. Aggravation classical bronchopulmonary dysplasia characterized by frequent obstructive bronchitis (p <0.001), bronchiolitis (p <0.01), pneumonia (p <0.01). When examined patients with classic BPD identified markers obstructive-restrictive respiratory failure, dyspnea at rest and during exercise (p <0.01), barrel chest (p <0.01) and involvement compliant sites (p <0.001), launched lower aperture (p <0.001), barrel chest (p <0.05), blunting, alternating with box sound (p <0.01) and hard breathing (p <0.001) and crepitation (p <0.01) .

3. For patients with bronchopulmonary dysplasia term exacerbation manifested by frequent pneumonia (p <0.001), which correlated with impaired neuro-respiratory drive (r = 0,678; p <0.05). Clinical markers of BPD during term remission of the disease are breathlessness (p <0.01), adding to the lack of body weight (p <0.001), tachypnea (p <0.01), acrocyanosis (p <0.001), blunting in the lower thoracic cells (p <0.001), hard breathing (p <0.001). Crackling and relaxed breathing is not characteristic of bronchopulmonary dysplasia term.

Prospects for further research, the findings reveal perspective systematization of clinical signs, laboratory and instrumental detection markers individualized basic treatment based forms of bronchopulmonary dysplasia to improve the prognosis of this disease in children.

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