

USE OF VITAMIN D IN THE TREATMENT OF ACUTE OBSTRUCTIVE BRONCHITIS IN CHILDREN AGAINST RHITIS

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ANNOTATION

Despite many studies today, the problem of rickets remains a topical issue in connection with new data on the course of rickets in other diseases, especially in the background of acute obstructive bronchitis. Optimizing the treatment of acute obstructive bronchitis on the background of rickets by prescribing the drug Aquadetrim Plus. In the period from 2017 to 2019, the pediatric department of the Republican Emergency Medical Center studied the clinical manifestations of 60 children with acute obstructive bronchitis on the background of rickets. In the IIB subgroup, 30 patients received Aquadetrim Plus in addition to conventional therapy. The IIA subgroup was 3.9 ± 0.4 and 4 percussion strokes were eliminated faster, compared with 30 patients receiving conventional therapy, 6 ± 0.3 days (respectively), and auscultatory data were 4.1 ± 0 , At days 3 and 5.1 ± 0.3 , in groups IIB and IIA. The study revealed the clinical efficacy of vitamin D in the composition of Acvadetrim Plus in acute obstructive bronchitis in children on the background of rickets.

Key words: Bronchoobstructive syndrome, rickets, acute bronchitis, vitamin D, hypovitaminosis D

Relevance of the problem. Rickets is one of the most common diseases in the world among children in the first years of life. [3]. Clinical studies show a link between vitamin D status, lung function, severity of inflammation, frequency of flare-ups, and increased risk of infection in the lungs. Currently, the generally accepted norms for taking the recommended Dvitami for children are 400-500 IU per day, and only in the autumn-winter period [1,2]. At the same time, data from modern fundamental and clinical studies show that these doses of vitamin D compensate for its deficiency in the child's body and are associated with pathologyingoldiniolishunetarliemas[4,12,13,15].

Effective compensation for vitamin D deficiency at a concentration of $25(\text{OH})\text{d} > 20\text{ng} / \text{ml}$ is achieved when vitamin D is prescribed: 500 IU per day for children under 4 months old (800 - 1000 IU per year for premature babies), 4 to 4 years old - 1000 IU / day, children 4-10 years old - 1500 IU / day, 10-16 years old - 2000 IU / day safe and helpful. reduces the risk of developing infectious and allergic diseases [8].

To prevent rickets, it is advisable to use cholecalciferolpreparates, in particular, an aqueous solution of vitamin D3 (Aquadetrim), taking into account its good digestion, especially in temporarily immature conditions of the child's gastrointestinal tract. The first months of Life [7].

Vitamin D requirements vary depending on age, nutrition and care habits, sunlight, season, climate, and various physiological and disease states of the child's body. [3,5,9,11]. Low intake of vitamin D from food is not so important for the development of rickets, because it is limited to food: egg yolk, cow fat, fish and bird liver. Women and cow's milk are low in vitamin D. Thus, breast milk contains 100 IU per liter, and cow's milk up to 40 IU [7]. Water-soluble vitamin D is also found in human milk, in large amounts - from 1.9 to 2.4 μg / 100 ml [7, 11], but its effect on the body has not been proven.

In children without hypercalcemia, the size of the large fontanel is not a contraindication for prescribing prophylactic doses of vitamin D, but vitamin D intake can be delayed from 3-4 months. from life. [10,13]. Therapeutic measures for rickets should be comprehensive, aimed at eliminating the causes of the development of vitamin D deficiency, including the organization of the correct routine of the child's day, reasonable feeding with sufficient protein, vitamins of group A, C and B. , calcium salts, phosphorus and trace elements (magnesium, copper and zinc), drug therapy with an alternative prescription of vitamin D and calcium preparations, hygienic and therapeutic baths, rubbing, washing, massage, physiotherapy exercises, gymnastics [14].

The purpose of the study was to optimize the treatment of acute obstructive bronchitis against the background of rickets by prescribing the drug Aquadetrim plus.

Materials and research methods. We studied the clinical picture of 60 children with acute obstructive bronchitis against the background of rickets, they were divided into 2 groups: IIA - 30 patients on conventional therapy, subgroup IIB - conventional therapy 30 children without therapy. drug Aquadetrim plus. Anamnesis, clinical, laboratory and instrumental data were studied for the patients.

Special research methods.

1. The level of vitamin D in blood plasma was determined using the chemiluminescent immunoassay method (Cobas E 411)
2. Assessment of bronchial obstruction was carried out according to RDAIshklasi, SShO.
3. Pulse oximetry.

Results and its discussion. An analysis of the main clinical manifestations of acute obstructive bronchitis after admission is presented in Table 1. The general condition of patients in group I was assessed as moderate in 2.5% of patients, severe in 20.0% of children, and extremely severe in 2.5% of cases. on the background of

rickets in children of the II group, it was on average 12.5% children, 55.0% severe and 7.5% extremely severe, which indicates that the main Severe cyanosis in children with rickets, II and III degrees of respiratory failure, tachypnea, paroxysmal cough, viscous hard sputum are more common in II group patients than in I group. Both

Skin rashes are equally common in patients of the group was standing The main pathological syndrome that determined the severity of the condition of all patients was bronchial obstruction syndrome. The complex of clinical symptoms of broncho-obstructive syndrome is characterized by a combination of specific symptoms of acute hypoxia and acute respiratory failure: from perioral to general cyanosis of varying severity. Cyanosis, noisy wheezing, involvement of auxiliary muscles in breathing. swelling of the nasal wings, paroxysmal cough, symptoms of coma, peripheral blood circulation disorders. Also, characteristic physical data were recorded in the lungs: percussion and box sound with diffuse expiratory wheezing. The disease often continues in a severe form.

The analysis of the dynamics of elimination of clinical and physical symptoms of bronchial obstruction in patients showed (Table 2) that the trend of the disease has a significant positive dynamics and the elimination of disease symptoms was observed in patients of group IIB. Compared with therapeutic group II, those who were on Aquadetrim and oral conventional therapy, who did not receive vitamin D, 1-3 days faster ($P < 0.01$; $P < 0.001$). The general condition of patients of group IIB was average It improved by 1.6 ± 0.2 days, and the cyanosis of the skin and mucous membranes disappeared by 1.2 ± 0.2 days, which was significantly different from the indicators of the IIA group.

In patients of group IIA, who received a complex of conventional therapy, the relief of respiratory failure is manifested in 4.1 ± 0.3 , 2.0 ± 0.1 days of heart failure, compared to the indicators of group II B. respiratory and cardiac functions were significantly improved (3.3 ± 0.3 and 1.8 ± 0.2 , respectively) ($P < 0.01$).

Conclusion: the study found the clinical effectiveness of vitamin D in the composition of the drug Aquadetrim plus in acute obstructive bronchitis against the background of rickets in children, indicating that it is advisable to include the drug in complex therapy of the disease in order to accelerate the recovery of the disease.

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