

IDENTIFYING ADVERSE PREMORBID BACKGROUND ENCOURAGING, AND SUPPORTING THE FLOW OF PNEUMONIA

Diseases of the respiratory system in children are invariably the center of attention of pediatricians, due to the high proportion of this pathology in the structure of morbidity and infant mortality. [1,2,3].

Keywords: pneumonia, respiratory disease, Identification, premorbid.

One of the important problems of Pediatrics is an acute pneumonia, not only because of its high incidence among children of all age groups, but the high rate of mortality at an early age, despite of the use new antimicrobial broad-spectrum drugs. Pneumonia is the leading cause of death before the age of 5 years. Every year the world recorded 155 million cases of pneumonia in children, 1.8 million of them die before the age of 5 years. It accounts for 20% of all deaths in children under 5 years. In developing countries, forecast pneumonia complicated by the high rate of malnutrition. Infant mortality from pneumonia in these countries is directly related to poor nutrition and lack of access to health care. In Russia, the incidence of pneumonia in children aged 1 month life of 15 years is from 4 to 17 in 1000, with a maximum at the age of 1-3 years. Most suffer from the boys (1,25:1-2:1), premature babies sick 11 times more full-term (V.K.Tatochenko, 2006). According to Chuchalina AG (2001) in Russia each year 1.5 million people become ill with pneumonia, with the correct diagnosis made at 1/3 of patients. Incidence of pneumonia in children in Russia (under proper radiographic criteria) within 12.4 per 1,000 children aged 1 month to 15 years. High mortality from pneumonia was observed in all countries of the world, including in countries with a developed structure of medical care. Over the past 30 years, mortality from pneumonia increased from 1 to 9%, and in severe, complicated forms of intensive care units in mortality from pneumonia is 40-50% [4].

In Kazakhstan 845 children died of respiratory disease under 5 years of age and 645 - to 1 year in 2008. Cause of death among children aged 0 to 5 years of the republic in 2008, respiratory diseases account for 10.1% of infants and - 8.7%. [5].

The purpose of the research - Identification of adverse premorbid background encouraging, and supporting the flow of pneumonia.

Material and methods.

Subjects include the results of examination and treatment of 250 children with severe community-acquired pneumonia at the age of 1 month. 7 years hospitalized Pulmonology DGKB number 2 of Almaty urgently for 2002 and 2007.

For solving the tasks, medical history, clinical laboratory, radiological, cytological and immunological diagnostic methods were used. Selection is determined by clinical and radiological diagnosis of community-acquired pneumonia.

All examined patients were divided into age groups: patients are children under the age of 1 year was 121 (48.4%), up to 2 years 56 (22.4%) up to 3 years, 35 (14%) and children 4 to 7 years 38 (15.2%) children.

The main group of children surveyed are patients aged 1 month to 3 years, an average of 84.8%. Children 3 to 7 years old make up a quarter of all patients (16.2%). High incidence of early childhood is associated with morphological and functional immaturity of the respiratory and humoral immunity, as determined by the frequency and severity of pneumonia. Among the children surveyed, 1 year old patients were of an absolute majority.

In the analysis of age structure, the majority of affected children are aged under 1 year (48.4%) were revealed.

Sick children up to 1 year, the distribution by sex revealed no significant difference in the prevalence of male children, 85 patients (70.2%) and 36 girls (29.7%), the prevalence and incidence of pneumonia in boys, because the factor regulating the synthesis of antibodies, is associated with the X chromosome, so the resistance to infectious diseases in boys below. In the surveyed group children at the age of 2 years and up to 3 years - the number of boys and girls were about equally distributed: 29 (51.7%) and 16 (45.7%).

Table 1 - All sick children residents, unorganized. The same number of children living in comfortable and uncomfortable conditions

Age	The number of patients			
	Comfortable conditions.		Unomfortable conditions	
	Abs.	%	Abs.	%
Up to 1 year	61	50,4	60	49,5
Up to 2 years	27	48,2	29	51,7
Up to 3 years	17	48,5	18	51,4
From 4 to 7 years	25	65,7	13	34,2

Analysis of anthropometric data of physical development showed that the average body length and body weight have an average standard values for age groups and have gross differences. Height and weight below the average in girls and vice versa advance in height and weight rates were boys.

Consequently, more than a third of children, showed height and weight averages. Cross Comparison of body length and body weight between the groups with lower than average rates of physical development in all age groups revealed no significant differences. Table 2 presents the results of all height and weight groups.

Table 2

Age	Weight		Height	
	Abs.	%	Abs.	%
Up to a year (normal)	98	81,0	102	84,3
lack	8	6,6	11	9,1
advance (above)	15	12,4	8	6,6
Up to 2 years (normal)	48	85,7	48	85,7
lack	3	5,3	6	10,7
advance (above)	5	8,9	2	3,57
Up to 3 years (normal)	31	88,5	27	77,1
lack	2	5,7	6	17,1
advance (above)	2	5,7	2	5,7

From 4 to 7 (normal)	37	97,3	36	94,7
lack	1	2,6	2	5,2
advance (above)	-	-	-	-

A significant number of patients had poor premorbid background, and most of the children had a combination of several different risk factors. Premorbid background in children with pneumonia.

Table 3

Upcoming Patology	Up to 1 year n=121		Up to 2 years n=56		Up to 3 years n=35		From 4 to 7 years n=38		Total n=250	
	abc.	%	abc.	%	ABC.	%	abc.	%	abc.	%
Anemia	64	52,9	24	42,8	14	40,0	3	7,9	105	42
Perinatal encephalopathy	40	33,1	9	16,0	7	20,0	-	-	56	22,4
Artificial feeding	33	27,3	3	5,3	-	-	-	-	36	14,4
Rickets	13	10,7	6	10,7	-	-	-	-	19	7,6
Atopic Dermot 10	10	8,3	7	12,5	2	5,7	2	5,2	21	8,4
Prematurity	18	14,9	12	21,4	7	20	-	-	37	14,8
Wasting	8	6,6	3	5,3	2	5,7	-	-	13	5,2
Parotrofiya	15	12,4	5	8,9	2	5,7	-	-	22	8,8
Thymomegaly	12	9,9	-	-	-	-	-	-	12	4,8
Drug allergies	6	5,0	4	7,1	4	11,4	4	10,5	18	7,2
Respiratory allergies	5	4,1	12	21,4	1	2,8	3	7,9	21	8,4
Bronh.astma risk.	-	-	-	-	-	-	6	15,8	6	2,4
Down illness	-	-	1	1,7	-	-	-	-	1	0,4
UPU	2	1,7	2	3,5	1	2,8	-	-	5	2
Nonrheumatic carditis	8	6,6	5	8,9	1	2,8	-	-	14	5,6
Dysbacteriosis	13	10,7	-	-	-	-	-	-	13	5,2

As it can be seen from the table

The main reasons contributing to the development of pneumonia and worsen pneumonia was the presence of modifying factors (background disease), as it was known from history that the pregnant mother passed against UPB as fetomaternal and placental bleeding, prematurity, multiple, deep, and long iron deficiency in pregnant.

Not suitable for pneumonia in young children is perinatal damage to the central nervous system due to the pathological course of pregnancy and childbirth, ante- and intrapartum fetal distress, which was observed in 22.4% of children.

It is necessary to consider that the presence of anemia may be due to the increased consumption of iron and excessive loss due to heavy growth in the first year of life.

Even a rare exposure to fresh air, as the peak incidence in the autumn and winter eating disorders and respiratory infections.

Children of the first year of life with intrauterine infection is marked changes of immune protection, which increases the course and outcomes of pneumonia. During a typical pneumonia tended to be prolonged duration, the long-term preservation of bronchial obstruction in the presence of the child's persistent CMV, chlamydia or mycoplasma infection.

Rickets were observed in children 1 year of age 13 (10.7), 2-year life of 6 (10.7%), predisposing factors to the development of rickets may have contributed to the lack of children's stay in the fresh air and the sun, and if you have to consider that disease had a mostly in the autumn and winter period, reducing the synthesis of vitamin D-3. Rickets in children both with a history of prematurity and present early presence on artificial feeding.

Artificial feeding in the majority were children 1 year of age 33 (27.3%), up to 2 years3 (5.3%) of history are known to have used a mixture of non-adapted, whole milk, and it was the late introduction of complementary foods.

In the structure of aggravated medical history 15.6% (39 children) were the allergic diseases: respiratory allergy -8.4% (21) with a primary prevalence in children 2 years of life 21.4% (12), signs of drug sensitization - in 7, 2% (18) occurred equally in all age groups.

Thus, the results provide the basis to speak on the impact of the degree of maturity of the child (prematurity, IUI, background pathology, neurological diseases) on the nature and course of pneumonia, duration of bronchial obstruction, the presence of persistent fetal infection.

The above features have a great effect on the character of the course and outcome of pneumonia in children especially in the first year of life and taken into account when assessing the severity of the disease, prognosis, possible complications and the possibility of an adverse outcome.

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Р.К. МУСАБЕКОВА, Е.Т. ДАДАМБАЕВ, Л.Ж. УМБЕТОВА
ПНЕВМОНИЯНЫ ДАМЫТАТЫН ЖӘНЕ ҚОЛДАЙТЫН АҒЫМЫНА ҚОЛАЙСЫЗ ПРЕМОРБИДТЫ ФОННЫҢ ӘСЕРІ

Түйін: Зерттеу қортындысына сәуене отырып даму дәрежесінің әсері (шала тұылу, ҚІИ, фондық патология, орталық жұке жүесінің аурулары) пневмонияның ағымына, бронх обструкцияның ұзақтығына және құрсақ ішілік инфекцияның дамуынан туындауы. Көрсетілген ерекшеліктер ерте жастағы балаларда пневмонияның ақымын ауырлатып болжамында асқынулармен өтіп қолайсыз жағдайға әкелуі.

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ВЫЯВЛЕНИЕ НЕБЛАГОПРИЯТНОГО ПРЕМОРБИДНОГО ФОНА ПРОВОЦИРУЮЩЕГО И ПОДДЕРЖИВАЮЩЕГО ТЕЧЕНИЯ ПНЕВМОНИИ

Резюме: Полученные результаты дают основание говорить о влиянии степени зрелости ребенка (недоношенность, ВУИ, фоновая патология, неврологические заболевания) на характер и течение пневмонии, длительность бронхиальной обструкции, наличие персистирующей внутриутробной инфекции. Перечисленные выше особенности оказывают большое влияние на характер течения и исход пневмонии у детей особенно первого года жизни и учитывались при оценке тяжести заболевания, прогнозе возможности развития осложнений и возможности неблагоприятного исхода.