

RISK FACTORS FOR PRIMARY ATELECTASIS IN NEWBORNS**Z. I. Ruzieva**

Tashkent medical academy, Tashkent, Uzbekistan

Ключевые слова: ребенок, ателектаз легких, преждевременные роды, фактор риска, заболевания матери, акушерская патология.

Таянч сўзлар: чақалоқ, ўпка ателектази, чала туғилиш, хавfli омил, она касалликлари, туғруқ патологиялари.

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In this study, the frequency of occurrence of risk factors and the pathogenetic mechanism of primary atelectasis of the lung in premature and full-term children were studied. Studied 98, including 52 premature, 46 full-term, clinical and anamnestic data and risk factors for primary atelectasis of the lung. The results showed that maternal diseases such as preeclampsia, infectious diseases, endocrine pathology and various extragenital diseases, as well as complications associated with the birth process, are risk factors for varying degrees of development of primary pulmonary atelectasis in newborns. As risk factors, the age of the mother under 20 and over 35 years, preeclampsia, infectious diseases, complications of childbirth, TBI in a child, and a high level of congenital malformations were identified. It was noted that primary atelectasis of the lungs in most cases occurs in premature babies, and the rate of development of diseases classified as risk factors is also high.

ЧАҚАЛОҚЛАР ЎПКАСИ БИРЛАМЧИ АТЕЛЕКТАЗИ ХАВFLИ ОМИЛЛАРИ**З. И. Рўзиева**

Тошкент тиббиёт академияси, Тошкент, Ўзбекистон

Ушбу мақолада чақалоқлар ўпкаси бирламчи ателектазининг чала ва етилиб туғилганлар гуруҳлари бўйича хавfli омилларининг учраш даражаси ва патогенетик механизми ўрганилган. Жами 98 та, шундан 52 та чала, 46 та етилиб туғилган чақалоқлар клиник-анамнестик маълумотлари ва ўпка бирламчи ателектазининг хавfli омиллари ўрганилди. Натижалар шуни кўрсатдики, янги туғилган чақалоқлар ўпкасида бирламчи ателектаз ривожланишига она касалликларидан преэклампсия, инфекция касалликлар, эндокрин патология ва ҳар хил экстрагенитал касалликлар, ҳамда туғруқ жараёнига боғлиқ асоратлар ҳар хил даражада хавfli омил бўлиши аниқланди. Хавfli омил сифатида онанинг ёши 20 дан кам ёки 35 дан юқори бўлиши, преэклампсия, инфекция касалликлар, туғруқ жараёнининг асоратли кечиши, боланинг бош ва мия жароҳатланиши ва туғма нуқсонлар юқори даражалиги аниқланди. Ўпканинг бирламчи ателектази аксарият ҳолларда чала туғилганларда учраши ва хавfli омил сифатида аниқланган касалликларнинг ривожланиши кўрсаткичи ҳам юқори даражадалиги кузатилди.

ФАКТОРЫ РИСКА ПЕРВИЧНОГО АТЕЛЕКТАЗА У НОВОРОЖДЕННЫХ**З. И. Рузиева**

Ташкентская медицинская академия, Ташкент, Узбекистан

В данном исследовании изучена частота встречаемости факторов риска и патогенетический механизм первичного ателектаза легкого у недоношенных и доношенных детей. Изучено 98, в том числе 52 недоношенных, 46 доношенных, клинико-анамнестические данные и факторы риска первичного ателектаза легкого. Результаты показали, что такие заболевания матери, как преэклампсия, инфекционные заболевания, эндокринная патология и различные экстрагенитальные заболевания, а также осложнения, связанные с родовым процессом, являются факторами риска развития первичного ателектаза легких у новорожденных. В качестве факторов риска определены возраст матери до 20 и более 35 лет, преэклампсия, инфекционные заболевания, осложнения родов, черепно-мозговая травма у ребенка, высокий уровень врожденных пороков развития. Отмечено, что первичный ателектаз легких в большинстве случаев возникает у недоношенных детей, а также высока скорость развития заболеваний, отнесенных к факторам риска.

Relevance. Respiratory diseases in young children are the main actual problem [1,3,4]. Among the diseases of young children, respiratory diseases occupy the 2nd place - 8.8%, and in most cases, due to the morphological and functional characteristics of the organs of the respiratory system, they occur in premature babies. For example, respiratory distress syndrome in children in general is 6-12%, in premature babies - 1-1.8%, in children with very low birth weight - 0.4-0.5%. Atelectasis of the lungs of newborns is a non-opening or re-closing of the pulmonary alveoli within 2 days after birth, depending on the structural features of the bronchoalveolar tissue and central regulation. The literal translation of atelectasis is "incomplete expansion" and refers to the anatomical condition of the lungs. Lung atelectasis in infants is included in "respiratory distress syndrome (DRS)" [2,5,7]. Its overall incidence is 1% of all children, and among premature babies it occurs in 14%. The relevance of the problem of atelectasis for pediatrics is due to the fact that there are

many reasons why the alveolar tissue of the lungs deteriorates at the age of one month. With atelectasis, there is a decrease in the respiratory surface of the alveolar tissue and its part involved in breathing. The causes of primary atelectasis in young children are as follows: lethargy and lethargy of the respiratory center, underdevelopment of the respiratory system, hypoxia or asphyxia, trauma to the brain or spinal cord. In addition to them, as the root cause of atelectasis, there is a syndrome of aspiration of gastric juice. This syndrome is mainly observed in late or premature birth of a child, while hypoxia, hypercapnia, acidosis develop in the child's body, the respiratory center is stimulated, the fetus begins to breathe, intestinal motility increases, meconium enters the amniotic fluid, and its aspiration respiratory tract. The risk factors leading to the development of primary atelectasis in a child mainly include diseases of the mother's body during pregnancy and pathologies that develop in connection with the birth process [1,3,6]. Since the data on the level of their occurrence have different indicators, this scientific study was aimed at clarifying the level of occurrence of these risk factors.

Material and methods: Autopsy reports, medical history and lung tissue of children examined in the Department of Paediatric and Maternal Pathology of the Republican Scientific Centre of the Ministry of Health of Uzbekistan over the last 5 years were studied as material. In total, 98 materials on infant mortality were submitted for examination, of which 46 were born full-term and 52 premature. In each case, the clinical and anamnestic data of the mother's anamnesis were studied, and the risk factors that cause the development of atelectasis in a child were analyzed.

Results and discussion. The results of the analysis showed that in 74 out of 98 cases, 75.5% of mothers were under 20 years of age or over 35 years of age as a form of risk factors. If the mother's age is less than 20 years, then the body is not ready for the reproductive process, if more than 35, then this can cause pregnancy complications due to the development of various diseases, as a result of which it has been established that the risk of developing atelectasis in the lungs in a newborn child, along with all its pathologies is high. It should be noted that this risk factor in most cases (64.3%) was confirmed as the cause of premature birth of a child. One of the following dangerous factors, toxicosis of pregnant women, that is, preeclampsia, is of great importance, under its influence, in most cases, atelectasis, a form of respiratory distress syndrome, can develop in the lungs of the fetus. On our material, the number of patients with preeclampsia was 36, i.e. 36.7%, which means that preeclampsia was a risk factor in 36.7% of cases of atelectasis (Table 1). At the same time, in most cases, children were born prematurely, and our material noted that in 28.3% of cases, primary atelectasis served as a risk factor for preterm birth. Infectious diseases that developed in the mother's body during pregnancy, including chlamydia, herpes, rubella and other infections, are considered the main risk factors for the development of respiratory distress syndrome in the fetus, and in our material it was found in 28 out of a total of 98 cases, which was 28.6%, of which 23.5% were born prematurely. Since maternal endocrinopathies, including diabetes mellitus, are chronic diseases, they worsen during pregnancy and may be a risk factor for any

Table 1.

Indicators of risk factors for primary atelectasis of the lungs in children by groups of premature and full-term infants, in %.

№	Risk factor	preterm birth		mature birth		General	
		number	%	number	%	number	%
1	Female age less than 20 or more than 35 years	63	64,3*	11	11,2*	74	75,5
2	Preeclampsia	28	28,6*	8	8,1*	36	36,7
3	Maternal infection during pregnancy	23	23,5**	5	5,1**	28	28,6
4	Endocrine pathology, diabetes mellitus	17	17,3**	4	4,1**	21	21,4
5	Other diseases during pregnancy	75	76,5**	14	14,3**	89	90,8
6	Complicated childbirth	28	28,6**	9	9,1**	37	37,7
7	Turning water from the vagina into meconium	21	21,4***	8	8,2***	29	29,6
8	preterm birth	52	53,1***	0	0	52	53,1
9	Premature displacement of the placenta	14	14,3***	5	5,1***	19	19,4
10	Brain injury during childbirth	38	38,8***	8	8,1***	46	46,9
11	The presence of heart defects in a child	13	13,3***	4	4,0***	17	17,3

fetal disease, including primary atelectasis that develops in the baby's lungs.

Various extragenital diseases present in the mother's body during pregnancy, including diseases of the cardiovascular system, gastrointestinal tract, nervous system, genitourinary system, are also considered a risk factor for the development of atelectasis lung pathology in a child, including extragenital diseases in our material in the amount of 90.8%, 76.5% of them corresponded to preterm birth. Most of these dangerous factors discussed by us are combined in the body of one mother, as a result of which the birth process is complicated, which can lead to the development of respiratory distress syndrome in the respiratory system of the child, on our material, complications of childbirth 37, In 7% of cases, prematurity was found to be a risk factor in 28.6% of cases.

If the amount of amniotic fluid that accumulates in the amniotic cavity of pregnant women increases or becomes infected and turns into meconium, it can enter the respiratory tract of the fetus and develop a respiratory syndrome in the lungs, including primary atelectasis. In our material, it was identified as a risk factor for the development of atelectasis in a total of 29 cases, that is, in 29.6% of them it served as a risk factor for the development of atelectasis in premature babies in 21.4% of cases. cases, and in the remaining 8.2% served as a risk factor for the development of atelectasis in premature babies. In pregnant women with a large number of extragenital diseases, a severe obstetric history, premature displacement of the placenta and the development of severe complications are possible. Based on our material, this pathology was diagnosed in 19.4% of infants with primary atelectasis, of which 14.3% were premature (Table 1). Most scientists note that one of the most common risk factors for the development of primary atelectasis in young children is traumatic brain injury, which results in damage to the respiratory center, which directly leads to acute respiratory distress syndrome, including primary atelectasis. In our material, traumatic brain injury was detected in 46.9% of cases, most of them occur in premature babies. Of course, as a risk factor for primary atelectasis, the development of congenital malformations in the fetus, including heart defects of various shapes, disrupts blood circulation in the lungs and leads to the development of primary atelectasis in the alveolar tissue. In our material, congenital heart defects were identified in 17.3% of cases as a risk factor for primary atelectasis in both premature and full-term infants, of which 13.3% were premature infants.

Conclusion: Preeclampsia, infectious diseases, endocrine pathology and various extragenital diseases, as well as complications associated with the birth process, are risk factors for varying degrees of development of primary pulmonary atelectasis in newborns.

As risk factors, the age of the mother under 20 and over 35 years, preeclampsia, infectious diseases, complications of childbirth, TBI in a child, and a high level of congenital malformations were identified.

It was noted that primary atelectasis of the lungs in most cases occurs in premature babies, and the rate of development of diseases classified as risk factors is also high.

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