OBSTETRIC AND PERINATAL FACTORS FOR THE FORMATION OF INTRAUTERINE PNEUMONIA

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https://doi.org/10.5281/zenodo.10004107

Anotation

In order to study the health status of children born with intrauterine pneumonia , an assessment was made of the health status of 36 children in the early neonatal period (the main group - 16 children , the control group - 20 children born with intrauterine pneumonia , and the obstetric and gynecological history of their mothers . As a result of the study , it was found that in newborns with congenital pneumonia , the frequency of organic pathology of the central nervous system is high .

The results of the study clearly demonstrate the need for timely preconception preparation of mothers with a burdened obstetric and gynecological history (sanation of the birth canal , preventive treatment of pregnant women with urinary tract infections , preeclampsia , threatened miscarriage), the main goal of which is to prevent intrauterine infection of the fetus .

Keywords : intrauterine pneumonia , intrauterine infection of the fetus , early neonatal period

Intrauterine pneumonia is one of the common forms of manifestation of infectious pathology of the fetus . The frequency of intrauterine pneumonia is from 2 to 3% of the total number of births. A common route of infection of the fetus is transplacental hematogenous penetration of the pathogen, as a result of which the source of congenital pneumonia is the mother.

Intrauterine pneumonia often leads to morbidity in the early neonatal period , as well as to early neonatal mortality.

The main role in the development of infection is played by respiratory distress syndrome , prematurity, fetal hypoxia during pregnancy, which lead to an infectious process due to immaturity of the lungs.

Based on the above , this topic is relevant for prediction, as well as timely diagnosis and treatment of intrauterine pneumonia in newborns.

Purpose of the study: to study the features of the course of pregnancy , childbirth, the postpartum period and outcomes for the newborn with intrauterine pneumonia.

Material and methods

A retrospective assessment of the course of pregnancy, childbirth and the postpartum period was carried out on the basis of the Republican Scientific Specialized Center for Obstetrics and Gynecology. Based on the results of assessing the history of childbirth in the State Institution of the Russian Scientific and Practical Medical Center and Hospital since January 2023. until May 2023 Of the total number of births, 16 women gave birth to 16 children with intrauterine pneumonia.

The control group consisted of 20 women with no history and uncomplicated pregnancy.

Research results and discussion

In the main group there were 9 (56.2%) primiparous women, 11 (55.0%) in the control group, 7 (43.7%) and 9 (45.0%) multiparous women, respectively. The average age of primiparous women from the main group was 23.8 years old, the control group – 25.6 years old. The average age of multiparous women in the main group was 33.4 years and in the control group 30.8 years, respectively.

The obstetric history of women in the main group was burdened by spontaneous miscarriages in 7 (43.7%), non-developing pregnancies in 3 (18.7%), which was not observed in women from the control group. Caesarean section was performed in 10 (62.5%) women of the main group, natural birth was in 6 (37.5%) women of the main group.

In pregnant women of the main group, before pregnancy, extragenital pathology was identified, the main part of which was represented by chronic arterial hypertension (25.0%) and diabetes mellitus (18.8%).

In the majority of women, pregnancy occurred against the background of MI (Urinary Tract Infection) (37.5%), ARVI with a rise in temperature in the 1st half of pregnancy was diagnosed in every fourth (25.0%) woman, hyperchromic anemia (18.8%) , autoimmune diseases accounted for (12.5%),

Nausea and vomiting in pregnant women of mild severity were observed in 6 (37.5%) pregnant women of the main group . Nausea and vomiting in pregnant women in the second half of pregnancy was observed in 2 (12.5%) women. The average duration of gestosis was 4.25 weeks. Moderate preeclampsia was observed in (18.8%) pregnant women, severe preeclampsia in (31.3%) In the control group, moderate preeclampsia occurred in 1 (6.2%) pregnant woman , severe preeclampsia was not established. In women of the main group, the threat of miscarriage in the 1st half of pregnancy was (12.5%), and in the 2nd half of pregnancy (18.7%). Fetal hypoxia was diagnosed using Doppler ultrasound in the third trimester of gestation in 4 (25%) women in the form of stage II NMPK. In the control group, intrauterine hypoxia was not observed.

Based on this, women with intrauterine infection of the fetus had a burdened obstetric and somatic anamnesis. These complications may contribute to frequent complications in children in the early neonatal period.

In 3 (18.8%) women in the main group, labor was complicated by prenatal rupture of amniotic fluid. In 7 (43.7%) women, the amniotic fluid was green and cloudy, which indicated severe intrauterine suffering of the fetus. 11 (68.7%) pregnant women in the main group gave birth prematurely, and 10 (62.5%) of them had early preterm birth at 28-32 weeks.

Indications for surgical Delivery conditions included severe preeclampsia (25.0%), inconclusive fetal condition (18.8%), chorioamnionitis (6.3%) and premature abruption of the normally located placenta (6.3%). These complications, combined with fetal hypoxia, served as indications for cesarean section. Surgical delivery was carried out (62.5%) among women in labor in the main group . Timely births in the main group occurred in (37.5%) women in labor.

All births in women from the control group were timely.

Mothers of the main group who gave birth to children with intrauterine pneumonia of prematurity gave birth to 10 (62.5%) full-term children 6 (37.5%).

There were 3 (18.7%) born with I degree of prematurity, 2 (12.5%) with II degree of prematurity, 4 (25%) with III degree of prematurity, and 1 (6.25%) with IV degree of prematurity, respectively.

Postnatal asphyxia in the first minute was severe in 2 (12.5%) newborns , moderate in 11 (68.7%), mild in 3 (18.7%), and severe in 1 (6.25%) in the fifth minute. moderate in 2 (12.5%), mild in 12 (75%) newborns, respectively .

Surfactant administration is the most effective method for the prevention and treatment of RDS. In the main group, 9 (56.25%) newborns were diagnosed with RDS at birth; the need for surfactant administration was (62.5%) . Only 6 (37.5%) newborns of the main group received double administration of exogenous surfactant .

After surfactant replacement therapy, artificial pulmonary ventilation (ALV) was required using the Constant method Positive Airway Pressure (C PAP), the average duration of which was 2.9 days.

CNS lesions were observed in (93.75%) newborns of the main group. Hypoxic changes were observed in 8(50%), intraventricular hemorrhages in 6(37.5%) and cerebral edema in 5(31.3%).

In 10 (62.5%) newborns of the main group, unilateral pneumonia was found, in 2 (12.5%) - bilateral. In 2 (12.5%) newborns, bilateral pneumonia was combined with respiratory distress syndrome (RDS) and in 2 (12.5%) - unilateral pulmonary atelectasis.

The diagnosis of pneumonia was made on the basis of clinical and laboratory data, and the results of an X-ray examination on day 1.

The vast majority of newborns in the main group, in addition to intrauterine pneumonia, had other diseases, such as anemia - in 10 (62.5%), DIC syndrome - in 1 (6.25%)

The severity of the condition of the newborns of the main group was determined by congenital pneumonia, central nervous system lesions (hypoxic changes , cerebral edema , intraventricular hemorrhages) and fetoplacental insufficiency (FPI).

In the early neonatal period, 2 (12.5%) infants died in the main group. The cause of death was disseminated intravascular coagulation syndrome and severe asphyxia. There were no postnatal losses in the control group of children. Due to the severity of the condition, 14 newborns were transferred to the 2nd stage of nursing for further treatment . In the control group, all children were discharged for outpatient observation.

Conclusions

Our study showed that the widespread incidence of complications in children born with intrauterine pneumonia is explained by intrauterine hypoxia, which increases during childbirth, especially in premature infants, leading to damage to the nervous system .

The difference between the main group and the control group showed the influence of obstetric and extragenital pathology , intrauterine infection of the fetus and perinatal complications in the newborn.

In our study, all central nervous system pathologies detected by ultrasound and clinical examination were observed in early premature births , which in most cases were combined with intrauterine pneumonia.

The study showed that perinatal risk factors for intrauterine pneumonia in newborns are : Acute respiratory viral infections in women in the 1st half of pregnancy , chronic foci of infections (IMI), complicated pregnancy (threat of miscarriage, toxicosis) and childbirth.

Based on the above , it is necessary to conduct thorough preconception preparation for women with a burdened obstetric history, and promptly identify risk factors for the development of intrauterine infection of the fetus.

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