OBJECTIVE: anamnestic, clinic-paraclinical findings and the course of RS-viral infection in patients, who were treated in the Neonatal Department of the RPCH of Chernivtsi are assessed.

MATERIAL AND METHODS. A retrospective analysis of 50 case histories of children treated for RS-infection during the last year was made. During hospitalization general clinical, biochemical, instrumental methods of examination were carried out for all the children.

RESULTS. Almost 18% of children hospitalized with RS-viral bronchiolitis received antibacterial therapy in spite of the fact that a part of accumulation of secondary bacterial infection was not higher than 8%. All the children received nebulizer and symptomatic therapy. Depending on the degree of severity and clinical manifestation of the disease nebulizer therapy was performed in combination with inhalation β2-agonists. 18 children (36%) received inhalation glucocorticosteroids, the rest — nebulizer therapy with the use of 0.9% NaCl solution. All the children in the intensive care unit required administration of oxygen supply, and one child required artificial lung ventilation. An average bed day was ten, it was longer only in three children due to preterm period.

CONCLUSIONS. The analysis of the findings showed that among patients with RS-viral infection, acute bronchiolitis, most children were those of the first and second month of life residing in rural districts from large families. The course of the disease tended to be favorable. The results of the study confirmed the topicality of a rational antibiotic therapy, based on the preliminary diagnosis or the data to identify the pathogenic stimulus.
Ключеві слова:
новорожденные,
респираторно-синцитиальный вирус, ретроспективный анализ, группы риска.


КЛИНИКО-АНАМНЕСТИЧЕСКИЕ ОСОБЕННОСТИ
ТЕЧЕНИЯ РЕСПИРАТОРНО-СИНЦИТИАЛЬНОЙ ВИРУСНОЙ
ИНФЕКЦИИ У НОВОРОЖДЕННЫХ, КОТОРЫЕ НАХОДИЛСЯ
НА СТАЦИОНАРНОМ ЛЕЧЕНИИ В ОБЛАСТНОЙ ДЕТСКОЙ
КЛИНИЧЕСКОЙ БОЛЬНИЦЕ

Л.В. Колобакина, Е.В. Власова, Л.М. Стефанчук

Цель работы — провести оценку анамнестических, клинико-параклинических данных и течения заболевания РС-вирусной инфекции у пациентов, которые находились на стационарном лечении в неонатальном блоке областной детской клинической больницы (ОДКБ) г. Черновцы.

Материал и методы. Ретроспективно проведен анализ историй болезни 50 детей, находившихся на лечении по поводу РС-инфекции в течение последнего года. Во время нахождения в стационаре всем детям проведено клинические, биохимические, инструментальные методы обследования.

Результаты. Почти 18% детей, госпитализированных с РС-вирусным бронхиолитом, получали антибактериальную терапию, хотя наличие вторичной бактериальной инфекции наблюдалось только в 8% случаев. Все дети получали небулазерную и симптоматическую терапию. В зависимости от тяжести и клинического течения заболевания небулазерная терапия проводилась с использованием ингаляционных β2-агонистов. 18 детей (36%) получали ингаляционные глюкокортикостероиды, а остальные — небулазерную терапию с использованием 0,9% р-ра NaCl. В кислородной поддержке нуждались все дети в отделении интенсивной терапии, а один ребенок был на искусственной вентиляции легких. Среднее пребывание в стационаре было 10 суток, лише трое детей находились дольше в связи с маленьким гестационным возрастом.

Вывод. Анализ полученных данных показал, что среди больных с РС-вирусной инфекцией, острым бронхиолитом преобладали дети первого-второго месяца жизни из многодетных семей сельской местности, преимущественно с благоприятным течением заболевания. Результаты исследования подтвердили актуальность рационального использования антибактериальной терапии, исходя из предварительного диагноза или данных идентификации патогенного збудиця.
Introduction. Respiratory-syncytial (RS) virus occupies a special position among numerous respiratory viruses due to variety and severity of clinical signs of the disease, high lethal outcome among the children from risk groups [1]. Epidemic increase of sickness on RS-viral infection occurs annually with the peak of morbidity at the end of autumn, winter and early spring [2]. The infection is found rarely in summer. During outbreak of the disease both known serotypes of RS-virus circulate, at the same time, more severe forms of infection are associated with A serotype. The probability of RS-viral infection during the first year of life constitutes practically 50%, at the same time, more severe course of the disease in the form of bronchiolitis, obstructive bronchitis and pneumonia is found among the children from risk groups, in particular: preterm infants, especially those under 3 months and with the body weight less than 5 kg on the moment of infection, children who were on artificial lung ventilation or prolonged oxygen supply with further formation of bronchial-pulmonary dysplasia, patients with cystic fibrosis, nervous-muscular diseases and immune deficiency conditions, hemodynamically significant congenital heart defects. The risk group also includes male sex, low body weight at birth, passive smoking, crowding and unsatisfactory material-living conditions [1, 3, 4]. RS-viral infection is able to cause the outbreak of nosocomial infection depending on the period of hospitalization which is provoked by the ability to transmit the virus not only by means of airborne way but also by means of the contact-everyday route through clothes, hands of the staff, things used for care.

Mortality rate due to RS-viral infection among healthy infants ranges within 0,3-1% cases, but it is 1- times as much among the children with congenital heart defects and practically 20 times as much in preterm infants born in the term of gestation less than 32 weeks, and 35 times as much in patients with bronchial-pulmonary dysplasia [5]. Approximately 10% of patients with RS-viral infection require urgent medical aid and hospitalization, especially those from risk groups [1, 6].

The issue concerning the role of RS-viral infection in the development of hyperactivity of the bronchi and possible risk factor in the formation of bronchial asthma remains topical nowadays. The issue concerning treatment of acute viral bronchiolitis is no less topical, as therapeutic approaches to it differ in different medical establishments in spite of the existing regulatory base available.

In recent times the emphasis has moved to the side of prevention of RS-viral bronchiolitis [7].

On the assumption of the above the objective of the study was assessment of anamnestic, clinical-paraclinical findings and the course of the disease caused by RS-viral infection in patients treated in the Neonatal Department of the Regional Pediatric Clinical Hospital, Chernivtsi.

Material and methods. A retrospective analysis of 50 case histories of children treated on RS-infection during the last year was made.

During hospitalization general clinical, biochemical, instrumental methods of examination were carried out for all the children.

Results and their discussion. The patients aged from 1 to 2 months of life (50%) prevailed among children treated. A part of infants under 1 month was 40%, and the rest 10% — the patients older than 2 months. According to the term of gestation a part of preterm infants was 14%, and term ones — 86% of cases. Every third child was born to a large family with pre-school and school children. Boys constituted 56%, and rural inhabitants — 78% of cases.

According to the time of hospitalization since the moment of the onset of the disease practically 66% of patients were admitted in the first three days, 38% of them were treated at the pre-admission stage, including 8% of patients with initiated antibacterial therapy. The analysis of anamnesis admitted that every fifth child was admitted in severe condition requiring intensive care in 20% of cases. The prevailing complaints during admission included unproductive cough, running nose, neurological symptoms in the form of changed behavior, lowered appetite and sucking activity. Only every third child was running low grade fever. Respiratory disorders in the form of mixed shortness of breath were registered in 40% of cases, cyanosis — in 8% (18%) of children, and two patients on admission were suffering from pathologic apnea.

Under conditions of limited possibilities the diagnosis of RS-viral infection, bronchiolitis was made mainly by clinical findings and the course of the disease.

Objective examination of children in the Department found the following respiratory disorders: inflation of the chest, dyspnea of inspiration character mainly and auscultative changes in the lungs in the form of fine-bubbling diffuse moist rales, constituting practically 80% of cases. Thoracic retraction was found in almost half of the children.

The signs of hemodynamic instability were registered in 8% of patients. One child with artificial lung ventilation and prolonged oxygen supply in the anamnesis due to the development of respiratory distress-syndrome after discharge from the hospital was hospitalized again on the 5th days since the onset of the disease with the signs of multiple organ failure resulting in unfavourable course of the disease.

Almost 18% of children hospitalized with RS-viral bronchiolitis received antibacterial therapy in spite of the fact that a part of accumulation of secondary bacterial infection was not higher than 8%. The analysis of literature data is indicative of the fact that antibacterial therapy was indicated for 34-98% of children with bronchiolitis even without evidenced efficacy [8]. All the children received nebulizer and symptomatic therapy. Depending on the degree of severity and clinical manifestation of the disease nebulizer therapy was performed in combination with inhalation β2-agonists. 18 children (36%) received inhalation glucocorticosteroids, the rest — nebulizer...
therapy with the use of 0.9% NaCl solution. Although there are no evidences concerning the efficacy of administration of glucocorticosteroids in case of bronchiolitis [9], parenteral glucocorticosteroids with a short course were indicated for half of the children. All the children in the intensive care unit required administration of oxygen supply, and one child required artificial lung ventilation. An average bed day was ten, it was longer only in three children due to preterm period.

Conclusions. The analysis of the findings obtained demonstrated that among patients with RS-viral infection, acute bronchiolitis, children of the first-second month of life from large families in the rural areas prevailed with a favourable course of the disease. The results of the study evidenced the topicality concerning initiation of rational antibacterial therapy on the basis of the predicted diagnosis or the data to identify a pathogenic agent.

References

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Надійшла до редакції 19.02.2018
Рецензент — проф. Сокольник С.В.
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