



Early Antibiotic Therapy of Acute Bacterial Destructive Pneumonia in Children

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Abstract: This article presents the results of treatment of 176 sick children with acute bacterial destructive pneumonia. In the treatment of this pathology, a new approach to the treatment of inflammatory infiltrates of the lung was used, based on the optimal choice of antibiotic administered transdermally-intrapulmonarily into the lesion, which prevented the transition of the disease to the purulent-destructive stage.

Key words: acute bacterial destructive pneumonia, intrapulmonary administration of antibiotics, empirical therapy, microflora.

Many scientific works have been devoted to the treatment of acute bacterial destruction of the lungs in children, and scientists of different generations have formed the basic principles of diagnosis and treatment of this pathology at the present stage. All this largely determines the level of medical care for patients with bacterial destruction of the lungs in children. Despite the success achieved in the diagnosis and treatment of acute bacterial destructive pneumonia in children, it remains a formidable pathology in children and is one of the main causes of child mortality, which forces scientists to continue studying the features of this pathology [2,7,13,18.].

Acute destructive pneumonia (ADP) is one of the most severe purulent-septic diseases of childhood. Various forms of destructive pneumonia account for 10% to 15% of the total number of pneumonias in children. [1,5,8, 14,25].

Evacuation of pus and air from the pleural cavity can be carried out using active or passive aspiration according to Bulau. When treating with pleural drainage, active aspiration is used predominantly. Passive aspiration is used only in cases where there are wide bronchopleural fistulas,

and active aspiration leads to leakage of a large amount of inhaled air and hypoxia. Active aspiration is possible during the period when the drainage is sealed; loss of tightness forces us to abandon this method in favor of passive outflow. Moreover, passive outflow for infants is more physiological compared to active aspiration.

Treatment of acute destructive pneumonia is characterized not only by local effects on the purulent-inflammatory focus, but also on deeply altered vital organs and reduced immunity of the child. Therefore, it is obvious that the treatment of acute destructive pneumonia should be comprehensive, combining the surgical method of influencing the source of infection with the most rational pathogenetic therapy, providing for an effective effect on the microorganism and activation of the protective factors of the macroorganism [1,4,25,30].

According to modern concepts, the rational use of antibacterial drugs involves bacteriological identification of the pathogen, determination of its drug sensitivity, knowledge of the mechanisms and spectrum of action of antibiotics, as well as the patterns of their distribution in biological environments and body tissues.

Purpose of the study. Treatment of children with the pulmonary form of acute destructive pneumonia with empirical antibiotic therapy in children.

Material and methods. This work is based on the examination and treatment data of 176 sick children with acute bacterial destructive pneumonia (ABDP), who received surgical treatment in the pediatric surgery department of the Bukhara Regional Children's Multidisciplinary Medical Center (ODMC). The age of the subjects ranged from 1 year to 14 years. Among the examined patients, there were slightly more boys (54.3%) than girls (45.7%). When studying the clinical and radiological picture of the disease, in each specific case we identified several clinical groups. The majority of patients were children with exudative pleurisy - 31.3% and pyopneumothorax - 31.8%. The incidence of pleural complications was significantly higher in children under 3 years of age – 78.4%. The main contingent of patients were children of the first three years of life, including: 30.7% - under the age of one year, from one year to three years made up the majority (47.7%) of the observed patients. It should be noted that in 83.7% of patients, acute bacterial destructive pneumonia occurred against the background of various concomitant diseases and complications, which were mainly observed in children of the first three years of life. In infancy, common concomitant diseases were anemia (90.3%), rickets (47.3%), malnutrition (30.2%), exudative diathesis (8.9%), etc. It is important to emphasize that 94% of children a history of acute viral infections and pneumonia was noted. To solve our problems, clinical, radiological and laboratory research methods were used.

We attached great importance in the treatment of the intrapulmonary form of ARDP - lobar infiltrates to the intrapulmonary administration of antibiotics to the infiltrate zone. This method is aimed at overcoming the biological barrier formed around the pathological focus and preventing the development of purulent pulmonary and pleural complications. After a preliminary study of X-ray data in direct and lateral projections, a puncture was made in the soft tissues of the chest wall, followed by insertion of a needle into the lung infiltrate. After the needle entered the infiltrate, an antibiotic was injected. When the medicine is administered into the pulmonary parenchyma, the patient experiences a short-term coughing attack. Older children experience a bitter taste in their mouth.

In order to carry out targeted administration of antibiotics, taking into account the type of pathogen, we used the following tactics. When patients were admitted to the hospital, they were empirically prescribed antibiotics based on the causative agent, gram-positive and gram-negative flora. The type of pathogen was immediately determined based on the tank. crops separated from the tracheobronchial tree. Taking this into account, as well as using data from known antibiograms, an antibiotic for intrapulmonary administration was determined. It should be emphasized that after receiving the data tank. Sowing, taking into account the antibiogram data, antibiotic therapy was adjusted.

For intrapulmonary administration, we most often used an antibiotic in a daily dose, diluted in 2-3 ml of a 0.5% novocaine solution. The puncture was performed daily for 3-5 days. Control X-rays of the chest organs were performed every 3-4 days. When cavitary formations appeared in the infiltrate zone, intrapulmonary administration was stopped due to the possibility of developing pleural complications.

The disadvantage of this method is that the attending physician does not receive research results on the type of pathogen during the first two days and the lack of data on their antibiotic sensitivity within 3-4 days from the moment the patient is admitted to the hospital. Consequently, during this period the doctor is deprived of the opportunity to carry out targeted antibiotic therapy.

Conclusions. 1. Based on this, it becomes clear that the development of methods for early registration of pathogens of purulent-inflammatory lung diseases seems to be an urgent task of modern medicine.

2. To carry out early antibiotic therapy, it is necessary to empirically prescribe antibiotics upon admission of patients to the hospital, taking into account the causative agent, gram-positive and gram-negative flora.

3. Immediate determination of the type of pathogen based on the tank. culture isolated from the source of infection. Taking into account the receipt of data tank. culture and antibiogram to correct antibiotic therapy.

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