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CLINICAL AND IMMUNOLOGICAL CHARACTERISTICS OF COMMUNITY-ACQUIRED PNEUMONIA IN CHILDREN WITH HEART FAILURE AND OPTIMIZATION OF REHABILITATION METHODS.

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ANNOTATION

The purpose of the updated clinical recommendations is to provide specialists, primarily anesthesiologists and resuscitators, with modern, evidence-based medicine data on the etiology, epidemiology, methods of diagnosis, treatment and prevention of severe community-acquired pneumonia in adults. In preparing this document, high-level scientific studies, systematic reviews and meta-analyses, recommendations of the Infectious Diseases Society of America/American Thoracic Society (IDSA/ATS), European Respiratory Society/European Society of Intensive Care Medicine/European Society of Clinical Microbiology and Infectious Diseases/ Latin American Thoracic Society (ERS/ESICM/ESCMID/ALAT) and other leading professional societies. Modern recommendations for differentiated antibiotic therapy for patients with severe community-acquired pneumonia (CAP), depending on the presence of risk factors for infection with certain microorganisms, are presented in detail, and etiotropic therapy regimens for the identified pathogen are presented. A significant section of the recommendations is devoted to respiratory therapy for TVP; a stepwise algorithm for the treatment of acute respiratory failure is formulated depending on its stage. The most effective and safe modes of invasive and non-invasive methods of respiratory support are characterized in detail. Glucocorticosteroids are named as methods of adjuvant therapy if it is impossible to stabilize hemodynamic parameters against the background of adequate hydration and vasopressor support, as well as parenteral anticoagulants to prevent thromboembolic complications. Anti-pneumococcal and anti-influenza vaccines have been proposed to prevent TVP in high-risk patients. Criteria for assessing the quality of medical care are presented...

Key words: community-acquired infections, pneumonia, antibacterial drugs, respiratory therapy.

INTRODUCTION

Pneumonia is a group of acute infectious (mainly bacterial) diseases, different in etiology, pathogenesis, and morphological characteristics, characterized by damage to the pulmonary parenchyma with the obligatory presence of intra-alveolar exudation. Community-acquired pneumonia is considered to be pneumonia that developed outside the hospital or was diagnosed in the first 48 hours from hospitalization [1, 2]. In the structure of childhood morbidity, pathology of the respiratory system consistently occupies a leading place. In particular, the incidence of community-acquired pneumonia in the regions ranges from 5 to 17 cases per 1000 children per year [1]. With age, the incidence decreases by 3-6 times; in school and adolescence, about 13 cases per 1000 children per year are registered [2]. The high prevalence of pneumonia due to the duration of the disease and the formation of unfavorable variants of the course and mortality can cause significant economic damage to society, causing medical and social significance. Despite the existing clear clinical and instrumental criteria for diagnosing community-acquired pneumonia in the pediatric population, the relevance of this topic remains. There is often a tendency towards under- and over-diagnosis of the disease, as well as the formation of severe and complicated forms; deaths are recorded annually [1, 3]. In

the pathogenesis of CAP, the leading role is played by a massive and virulent infection, exposure to microbial toxins, a decrease in the body's nonspecific resistance, an imbalance of local and systemic immunity, and disruption of free radical oxidation processes [1, 7], therefore, the treatment of CAP should be comprehensive, affecting all parts of the pathogenesis , including immunological. In this regard, it is of interest to clinically and immunologically evaluate the effectiveness of drugs with proven immunomodulatory activity, such as polyoxidonium and imunofan, in the treatment of severe forms of community-acquired pneumonia. Today there is positive experience in the use of polyoxidonium and imunofan in the complex treatment of a number of severe chronic infectious and inflammatory processes (tuberculosis, chronic lymphocytic leukemia, hepatitis, psoriasis, HIV infection) [5, 8].

Materials and research methods. A survey was conducted of 105 patients with CAP aged from 17 to 60 years who were undergoing inpatient treatment at City Clinical Hospital No. 5 in Ufa. The diagnosis of pneumonia and its severity were determined in accordance with the recommendations of the All-Russian Scientific Society of Pulmonologists [2]. During hospitalization, all patients examined, according to the standards of the International Society of Pulmonologists, were prescribed antibacterial therapy, including aminopenicillins, cephalosporins of the second-fourth generation, macrolides, and alternative groups of antibiotics (fluoroquinolones). The examination of patients was carried out in accordance with republican medical and economic standards. Verification of CAP pathogens was carried out by microscopic and bacteriological methods. Immunological examination was carried out twice - on the day of admission to the hospital and over time 10 days after the start of treatment. Depending on the immunotropic therapy, patients with CAP with moderate and severe forms of the disease (105 patients) were divided into 3 groups: Group I - 25 patients who received the immunomodulator Imunofan as part of complex treatment from 3-4 days of hospital stay, at a dose of 50 mcg/ml intramuscularly, once a day, every other day, for 10 days; Group II - 35 patients who, as part of complex therapy, were prescribed polyoxidonium from 3-4 days of hospital stay, at a dose of 6 mg, intramuscularly, once a day, every other day, for 10 days; To assess the clinical and immunological effectiveness of these immunomodulators, group III (control) was allocated - 45 patients with CAP who received standard therapy (without the use of immunocorrection) - comparable to the main groups by gender, age and severity.

CONCLUSION.

1. In patients with severe forms of community-acquired pneumonia, there is an inadequacy of immune defense mechanisms; therefore, the inclusion of immunomodulators in the complex therapy of CAP is clinically and immunologically justified.

2. The use of drugs imunofan and polyoxidonium in complex therapy of CAP increases the effectiveness of antibacterial therapy, leads to normalization of nonspecific resistance factors, indicators of cellular immunity, is accompanied by positive clinical dynamics and can be recommended in complex therapy of CAP.

3. The drug polyoxidonium, when prescribed in complex therapy of patients with moderate and severe forms of CAP, showed great immunomodulatory activity in relation to the cellular mechanisms of immunity.

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