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FEATURES OF COMMUNITY-ACQUIRED PNEUMONIA IN CHILDREN.

Fatima F. Xoltayeva - Candidate of Medical Sciences, Senior Lecturer at the Department of Childhood Diseases in Family Medicine at the Tashkent Medical Academy, Tashkent, Uzbekistan, xoltayevafotima@gmail.com.

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Abstract:

In clinical practice, along with diseases of the cardiovascular system, a quite urgent and social problem is the pathology of the pulmonary system in the form of pneumonia. Pneumonia is a group of acute infectious (mainly bacterial) diseases, different in etiology, pathogenesis, and morphological characteristics, characterized by focal damage to the respiratory parts of the lungs with the obligatory presence of intra-alveolar exudation; the most widespread in humans is community-acquired pneumonia. According to WHO, it ranks 4th on the list of deaths from infectious diseases. In Uzbekistan, the incidence of community-acquired pneumonia is 5-8 people per 1000 people per year among people over 18 years of age. This disease occurs in the community or later than four weeks after discharge, and is diagnosed within 48 hours of hospitalization. At the same time, in elderly people, the incidence of community-acquired pneumonia is 2 times higher than in young people, and the mortality rate among patients over 60 years of age is 10 times higher. One of the factors in the development of severe forms of community-acquired pneumonia in the elderly is the addition of endogenous intoxication.

Keywords: Children, community-acquired pneumonia, diagnosis, antibiotic therapy.

INTRODUCTION:

Community-acquired pneumonia (CAP) in children is an urgent problem of modern pediatrics, the need for widespread coverage of which in the medical literature is confirmed by data from the World Health Organization (WHO - pneumonia is the leading cause of death in children worldwide; - annually pneumonia claims the lives of approximately 1.1 million children in under five years of age. This is more than AIDS, malaria and measles combined; - pneumonia can be caused by viruses, bacteria and fungi; - pneumonia can be prevented by immunization, adequate nutrition and eliminating environmental factors; treated with antibiotics, but only about 30% of children with pneumonia receive the antibiotics they need. Back in 2009, WHO and UNICEF experts declared pneumonia the leading cause of death in children under five years of age and declared the "Global Action Plan for the Prevention and Control of Pneumonia (GAPP)." , in which management of the most common pathogens of pneumonia was considered as the main effective method for reducing child mortality [2]. In 2012, according to WHO, there were 6.6 million deaths among children under five years of age, with pneumonia (17%) and complications associated with preterm birth (17%) remaining the leading causes of death. asphyxia at birth (11%), diarrhea (9%) and malaria (7%) [2]. Therefore, in 2013, WHO and UNICEF continued to work in accordance with the Global Action Plan to Fight Pneumonia and Diarrhea, the main goals of which are to intensify the fight against pneumonia in the world, which should be carried out through combined activities to protect children from pneumonia, its prevention and treatment, which includes the following [2]: - protecting children from pneumonia, including promoting exclusive breastfeeding and hand washing, and reducing indoor air pollution; - prevention of pneumonia through vaccination; — treating pneumonia: ensuring that each child receives the right treatment, either through a community health worker or, in the case of severe illness, in a health facility, and providing the antibiotics and oxygen needed for recovery. The incidence rate of community-acquired pneumonia in most countries is 10–12 ‰, varying depending on the age, gender, race and socio-economic conditions of the populations studied [2, 5, 6,]. The prevalence of CAP in the world ranges from 3 to 12 cases per 1 thousand population. In 2009, the incidence of CAP was 4.6 per 1 thousand of the population, which exceeded similar indicators in previous years, and per 1 thousand children aged 1 month to 15 years, the incidence of pneumonia ranged from 4 to 20 cases, while The mortality rate from pneumonia in our country averages 13.1 per 10 thousand children, and as a cause of death in young children is registered in 5–10%. The incidence of pneumonia in Russia, according to various authors, is 14–15 ‰, and the total number of patients annually exceeds 1.5 million people [2, 5, 6,]. In European countries, these indicators range from 34–40 cases per 1 thousand children. In recent years, in countries with

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a high level of economic development, mortality rates among children from CAP do not exceed 10–12%, but in third world countries, mortality from pneumonia remains very high [2]. The diagnostic algorithm for verifying pneumonia is standardized, based on generally accepted clinical symptoms and, according to the Protocol for the treatment of pneumonia in children [12], pneumonia is diagnosed in the presence of a complex of symptoms of general intoxication, fever, catarrhal manifestations (productive cough), respiratory failure (shortness of breath, participation of auxiliary muscles in breathing, acrocyanosis, etc.), percussion (local shortening of the percussion tone) and auscultation (hard or bronchial breathing, crepitation, asymmetrical moist fine rales) changes in the lungs, confirmed by the presence of pulmonary infiltrates according to radiological research methods (radiography or computed tomography of the chest organs) [12]. WHO experts believe that typical cases of pneumonia are characterized by [2]: febrile fever lasting more than 3 days; cyanosis and the presence of the following signs of respiratory distress: shortness of breath > 60 per minute in children under 2 months, > 50 at the age of 2–12 months, > 40 in children from one to 5 years of age and > 30 in children over 5 years of age in the absence of signs of bronchial obstruction (tachypnea is one of the best predictors of pneumonia in children of all ages); cough (15–25% of sick children may not have a cough); upon physical examination, in 50–70% of cases, shortening of the percussion sound in the affected area, bronchial or weakened breathing, sonorous fine bubble or crepitant wheezing are observed (in young children, physical findings in the lungs with pneumonia in most cases are practically indistinguishable from changes in bronchiolitis and bronchitis) [2]. Chest radiography remains the gold standard in diagnosing pneumonia. Criteria for the severity of the pneumonic process developed by V.G. Maydannik presented The need for hospitalization in accordance with the national Protocol for the treatment of pneumonia in children is determined by age (children under 3 years of age), severity of pneumonia (children with moderate pneumonia, severe and complicated course of the disease, with severe intoxication), the presence of comorbid conditions, which worsen the course of the underlying disease, and unsatisfactory social and living conditions [12]. The choice of antibacterial drugs for pneumonia, as for other infectious and inflammatory diseases, should be determined primarily by the characteristics of the etiology of the disease [1, 3, 8, 9]. However, in the vast majority of cases, a correct microbiological examination of children with pneumonia is not carried out, despite the fact that, in accordance with the International Statistical Classification of Diseases and Related Health Problems, tenth revision, the classification of pneumonia should be based strictly on the etiological principle. Today, modern pulmonology has developed recommendations and algorithms for the empirical selection of starting antibiotics, the fundamental principle of which is the choice of drugs depending on the epidemiological conditions and age of the sick, since the etiology of pneumonia directly depends on these factors. At the same time, the epidemiological classification of pneumonia involves the identification of community-acquired, hospital-acquired and intrauterine forms of the disease.

According to the modern classification of clinical forms of bronchopulmonary diseases in children (2009), community-acquired pneumonia is understood as an acute infectious disease of the lungs, predominantly of bacterial etiology, developing outside the hospital or in the first 48–72 hours of hospitalization, accompanied by fever and symptoms of lower respiratory tract damage (shortness of breath, cough and physical changes), in the presence of infiltrative changes on the radiograph. The issue of the etiological structure of pneumonia in children today is debatable. According to D. Gilbert et al. the etiology of CAP depends on age and in the neonatal period is represented by viruses (cytomegalovirus, rubella virus, herpes simplex), S.agalactiae, L.monocytogenes, Enterobacteriaceae, Staph.aureus, P.aeruginosa; in children aged 1–3 months. the predominant pathogen is C. trachomatis, respiratory syncytial (RS) virus, parainfluenza virus-3, S. pneumoniae and, less commonly, Staph. aureus. In the 4 month age group. — 5 years, the leading causative agents of pneumonia are viruses (including the RS virus), S.pneumoniae, H.influenzae, M.pneumoniae, and M.tuberculosis. In children aged 5 to 15 years, along with S.pneumoniae, the role of M.pneumoniae and C.pneumoniae, as well as M.tuberculosis, increases significantly.

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