## PECULARITIES OF CLINICAL AND RESEARCH METHODS IN COMMUNITY- ACQUIRED PNEUMONIA IN CHILDREN WITH MIOCARDITES

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Pneumonia is the leading infectious cause of death in children worldwide, with most deaths occurring in developing countries [1]. Despite research, the problem of myocarditis in children still remains unresolved, which is associated with a variety of etiological factors, clinical, laboratory and instrumental manifestations of the disease.[5] The search for differential diagnostic criteria and additional methods of pathogenetic therapy of the disease continues. The results of clinical, radiological, laboratory examination of children with community-acquired pneumonia and community-acquired pneumonia with myocarditis, living in the Samarkand region, its place in the structure of bronchopulmonary pathology in children according to hospitalization data are given. The etiological structure of community-acquired pneumonia with myocarditis, the sensitivity of pneumotropic microflora to the main

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groups of antibiotics are shown. The results obtained emphasize the age-related features of the course of community-acquired pneumonia in children.

**Keywords:** community-acquired pneumonia, myocarditis, children, etiology, bacteriological examination of sputum, chest radiography.

**Prevalance.** The article describes anamnestic, clinical, traditional laboratory and special examination methods in 80 community-acquired pneumonia children aged 1 to 6 years, including emergency pediatrics and pediatric resuscitation of the Samarkand branch of the Republican Emergency Medical Research Center in 2020-2022 The results of 40 patients with myocarditis admitted to II departments are presented.

Key words:

Patients in the 1st stage of the study were divided into 3 groups:

Group I included 40 children with community- acquired pneumonia without myocarditis.

Group II included 40 patients with mild and moderate severity of communityacquired pneumonia against the background of myocarditis.

All patients underwent traditional clinical, laboratory and instrumental examinations, as well as special research methods.

In stage 2 (patients were taken from stage 1 of the study), patients were divided into 2 subgroups:

Subgroup Ia (20) received conventional therapy

Subgroup Ib (20) received a differential corrective treatment regimen in addition to conventional therapy.

The control group consisted of 20 almost healthy children.

Exclusion criteria from the study were patients with chronic (hereditary) diseases of the pulmonary bronchial system and congenital heart defects that naturally occur with changes in the cardiovascular system.

Checking the diagnosis of pneumonia was carried out according to the classification of the main clinical forms of pulmonary-bronchial diseases in children approved at the meeting of the XVIII National Congress on Respiratory Diseases [3].

We used the classification of myocarditis in children of the working group of the Russian Association of Pediatric Cardiologists [7].

Exclusion criteria from the study were patients with chronic (hereditary) diseases of the pulmonary-bronchial system and congenital heart defects.

Most patients are hospitalized 1 to 4 days after the onset of illness; after admission, all patients were prescribed the same basic etiotropic, pathogenetic and symptomatic therapy for pneumonia and myocarditis according to generally accepted treatment schemes [4].

Materials and methods. The discharge of sick children from the hospital was carried out in accordance with the specifics of the work of the emergency medical service, which cannot be delayed according to the standards of diagnosis and treatment, in which the recommended duration of inpatient treatment is 9 days for community-acquired pneumonia. Follow-up and treatment of patients who responded in the future continued until the resolution of the main symptoms of the disease.

After discharge from the hospital with recovery or improvement of the main disease, the children continued to be followed for 1 month to 3 years, which was terminated when all studied indicators were normalized or changes were noted that did not require continued therapy. Clinical analysis of blood and urine, etiological diagnosis of the main disease were fully investigated in all children included in the study.

**Research results.** Analysis of patients by gender showed that boys (58.7%) were more affected than girls (41.3%). The analysis of the results 2 shows that CAP with miocardites mostly affected in boys, most often is in children aged 1-3 years (68.3%), and most cases of are under 1 year (87.0%) was observed in children. Analysis of patients by gender showed that boys (58.7%) were mostly affected compared to girls (41.3%).

Among the examined patients, the largest share of children aged 3-4 years - 81 (54.0%), 1-2 years old - 47 (31.2%) and less in 5-year-old children - 22 (14.7%) were, these indicators can be compared with literature data on the incidence of pneumonia.

A study of 80 children with community- acquired pneumonia and myocarditis showed that the clinical signs mostly correspond to the main manifestations of the disease, and the clinical manifestation of the disease is not only it is characterized by pathological changes in the lungs, but it is also manifested by the frequent involvement of other vital organs in the pathological process.

The condition of hospitalized patients was evaluated from moderate to severe. Moderate forms of the disease were less common (18.7%) and were mainly observed in patients with pneumonia without myocarditis, the severe course of the disease was the majority of children (77.3%). Severe cases (4.0%) were mainly hospitalized late with myocarditis and pneumonia.

A comparative analysis of clinical symptoms and syndrome complexes showed that an increase in body temperature was characteristic of 83.3% of patients with M, and in most cases (48.3%) the temperature was over  $38.5 \degree$  C high, there was a temperature reaction with CAP, a less characteristic sign - 76.6%, there were a number of cases (43.3%) with a temperature higher than 38.5 ° C. Complaints of fatigue (54.2%) and loss of appetite (73.3%) were observed mainly by children with CAP with miocardites, compared to cases of pneumonia outside the hospital (13.3% and 46.7%).

Cyanosis of the skin and mucous membranes was observed more often in patients with CAP, therefore, the frequency of perioral cyanosis was almost the same in the observed groups - 79.2% and 70.0%, while the frequency of acrocyanosis was observed with CAP (26.7% and 6.7%) were 4 times more.

Patients with CAP are characterized by mild respiratory disorders in the body, in this regard, acute respiratory failure of the first degree (20.0%), while patients with CAP have acute respiratory failure of the II degree (82, 5) and more than III

degree (12.5%) is observed.

Differences in the data of percussion and auscultation during examination of respiratory organs were almost not noted in the compared groups of patients.

Pneumonia in children is manifested not only by breathing, but also by cardiovascular insufficiency, the cause of which is a pathogenetically determined blood circulation disorder, an overload of blood circulation in the lungs that occurs when organs are damaged.

The analysis of the frequency of development of clinical signs reflecting the state of the cardiovascular system showed that in the clinical presentation of pneumonia outside the hospital in children, during auscultation of the heart, muffled heart sounds are heard in 66.7% of cases, tachycardia is heard in 26.7% of cases. , bradycardia in 3.3% of cases and expansion of cardiac boundaries was detected in 10.0% of cases.

Data in the group of patients with CAP showed that tachycardia increased by 2.6 times, bradycardia by 3 times, arrhythmia by 3.5 times, heart limits by 5 times and systolic noise by 2 times, heart tones were muffled. the frequency of heart failure was almost the same - 68.3% and 66.7%.

Analysis of arbitrary emergency tables using  $\chi^2$  to determine the importance of clinical symptoms in patients. A series with different levels of confidence describing the characteristics of the course of community-acquired pneumonia compared to community-acquired pneumonia and pneumonia acquired with myocarditis determined the indicators.

In an ECG study of all 150 hospitalized patients, sinus tachycardia - 29 (19.3.7%), sinus bradyarrhythmia - 10 (6.7%), extrasystole - 14 (7.3%), incomplete blockade detected. A decrease in the amplitude of the QRS complex was observed in 12 (8.0%) and 23 (15.3%) patients with right bundle branch block.

When analyzing the frequency of the above ECG changes depending on the nosological form of the disease (in patients with community-acquired pneumonia and patients with myocarditis), a significant difference was found for almost all studied

indicators.

**Disscussion of results.** The use of antiviral drugs is indicated for CAP of viral etiology (influenza, adenovirus, coronavirus), as well as CAP developed against the background of current ARVI. Direct antiviral agents include neuraminidase inhibitors umifenovir, imidazolyl ethanamide pentanedioic acid, inosine pranobex and adamantane drugs [8]. The prognosis of myocarditis in children depends not only on clinical manifestations, but also on etiopathogenetic factors, but now standard strategies for the treatment of myocarditis in children are generally recognized [6].

The criteria for recovery in carditis are as follows: normalization of heart volume, absence of heart failure, restoration of ExoKG parameters, normalization of laboratory parameters and absence of cardiospecific signs. On average, the treatment of acute myocarditis lasts from 1 to 3 months. [2].

Due to the diversity of clinical signs, acute myocarditis should be included in the differential diagnostic algorithm for any cardiac pathology in children. To date, continuous efforts are required to develop targeted therapies to prevent the short-term and long-term consequences of this disease.

**Conclusion.** Thus, in patients with myocarditis, the frequency of sinus tachycardia decreased by 3.4 times, sinus arrhythmia by 2 times, right bundle branch block by 2.8 times, and the amplitude of the QRS complex by 5.5 times. and extrasystole decreased by 11.7%, which was not observed in the group of patients with CAP, respectively.

Determining the importance of electrocardiographic indicators in patients with myocarditis compared with pneumonia outside the hospital revealed a number of indicators with different degrees of reliability.

The results of the virological study showed that in the group of children with pneumonia outside the hospital, RS-virus infection was detected in 3 cases (10.0%), and the remaining pathogens were isolated only in isolated cases.

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