



Courses of acute pneumonia in children on the background of myocarditis

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Annotation. Pneumonia is an acute infectious disease, different in etiology (mainly bacterial), characterized by focal lesions of the lungs with intraalveolar exudation, which manifests itself in various degrees of intoxication, respiratory disorders, local physical changes in the lungs and the presence of an infiltrative shadow on the chest x-ray. Myocarditis is an inflammatory lesion of the myocardium of an infectious, toxic-infectious, infectious-allergic, autoimmune or toxic etiology. In this work, we studied the course of community-acquired pneumonia in children with myocarditis.

Key words: pneumonia, myocarditis, children, lungs, intoxication.

Relevance.

Currently, ideas about the etiology of pneumonia in children vary significantly: for example, according to some authors, the main causative agents of bacterial pneumonia are *S. pneumoniae* and *H. influenzae b*, and it is indicated that the largest number of severe cases of pneumonia in children is attributed to the disease caused by these etiological factors. [1,2].

In the etiological structure of CAP in children, the most common infectious agents include *Streptococcus pneumoniae*, *Mycoplasma pneumoniae*, relatively infrequent *Staphylococcus aureus*, *Chlamydia trachomatis*, *Bordetella pertussis*, and rarely *Haemophilus influenzae*, *Streptococcus pyogenes*, *Streptococcus agalactiae* and *Escherichia coli* [2,3]

In the study of the etiological structure of community-acquired pneumonia, it was revealed that it has age-related features. Since the main causative agent of pneumonia is *Streptococcus pneumoniae*, a certain role is assigned to atypical pathogens, such as *Mycoplasma pneumoniae* and *Chlamydia trachomatis*, the role of viruses is quite large in. The authors indicate that the etiological agents of the development of community-acquired pneumonia in children depend on the geographical region, the calendar of preventive vaccinations, and antibiotic therapy of the disease. [1,3,5]

Most often, myocarditis is of a viral nature. At the same time, if earlier the group of coxsackieviruses was in the first place in terms of the frequency and severity of the lesion, now parvovirus B19, the group of herpes virus type 6 and Epstein-Barr are more often determined [2,3,5].



Currently, cardiotropic viruses include enteroviruses, adenoviruses, poliomyelitis viruses, herpes viruses types 1 and 6, and some types of influenza virus [2,4].

The most common cause of myocarditis in children are Coxsackie enteroviruses and ECHO [2,3,4].

Currently, when using the polymerase chain reaction, an increase in the frequency of parvovirus (PVC19), herpesvirus (HHV6) and also up to 25% of cases determine the combination of two or more different pathogens (PVB19 and HHV6) in myocarditis [1,2,5].

Purpose of the study: To study the course of community-acquired pneumonia in children with myocarditis.

Materials and methods of research:

To solve the set goal and task, we plan to conduct research in the departments of emergency pediatrics and the pediatric intensive care unit of the Samarkand branch of the Republican Scientific Center for Emergency Medical Care. A survey of 80 children aged 1 to 5 years with community-acquired pneumonia will be conducted. Of them:

Group I - 40 patients with severe community-acquired pneumonia on the background of myocarditis.

Group II - 40 patients with mild and moderate course of community-acquired pneumonia on the background of myocarditis.

The control group will consist of 20 practically healthy children.

Patients from both groups will be collected anamnestic data, examination by conventional clinical, laboratory and instrumental, as well as special methods.

Research results and discussion:

A survey of 80 children with community-acquired pneumonia and community-acquired pneumonia with myocarditis showed that the clinical symptoms basically correspond to the main manifestations of the disease, while the clinical manifestations of the diseases are characterized not only by pathological changes in the lungs, but also by frequent involvement of other vital organs in the pathological process. and systems.

Table 1. The frequency of occurrence of clinical manifestations at admission in patients with community-acquired pneumonia and community-acquired pneumonia with myocarditis.

Clinical signs	Group I (n=40)		Group II (n=40)	
	abs.	%	abs.	%
General state				
medium-heavy	5	12,5	15	37,5
heavy	33	82,5	24	60
extremely difficult	3	7,5	1	2,5
temperature 37,0-38,5°C	14	35	13	32,5
temperature >38,5°C	19	47,5	17	42,5



fatigue	22	55	5	12,5
loss of appetite	29	72,5	19	47,5
hepatomegaly	10	25	3	7,5
Cyanosis of the skin and mucous membranes				
absent	4	10	9	22,5
perioral cyanosis	32	80	28	70
acrocyanosis	11	27,5	3	7,5
Degree of respiratory failure				
respiratory failure I degree	2	5,0	8	20
respiratory failure II degree	33	82,5	31	77,5
respiratory failure III degree	5	12,5	1	2,5

The condition of patients upon admission to the hospital (Figure 1) was assessed from moderate to extremely severe condition. Moderate forms of the disease accounted for a smaller proportion (18.7%) and were observed mainly in patients with pneumonia without myocarditis, the severe course of the disease accounted for the bulk of the children (77.3%). Extremely severe forms (4.0%) were observed predominantly met with late admission to the hospital of patients with community-acquired pneumonia with myocarditis. A comparative analysis of clinical symptoms and syndromes showed that an increase in body temperature was characteristic of 83.3% of patients with CAP with M, and in most cases (48.3%) the temperature was more than 38.5 ° C, with CAP the temperature reaction was a less characteristic sign. - 76.6%, there were a number of cases (43.3%) when the temperature reached values above 38.5°C. Complaints of fatigue (54.2%) and loss of appetite (73.3%) were mainly presented by children with CAP with M, compared with patients with community-acquired pneumonia (13.3% and 46.7%).

Cyanosis of the skin and mucous membranes was observed much more often in patients with SLM, so if the frequency of perioral cyanosis was almost the same in the observed groups - 79.2% and 70.0%, then there was a frequency of acrocyanosis 4 times more often observed with SLM (26.7% and 6.7%).

Conclusions: Thus, the analysis of the data showed that pneumonia in children is manifested not only by respiratory, but also by cardiovascular insufficiency, which are caused by pathogenetically caused circulatory disorders, overload of the pulmonary circulation that occurs when organs are damaged.

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