ACUTE INFECTIONS WITH COMBINED RESPIRATORY AND DIGESTIVE SYSTEMS

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Abstract. *The article is devoted to the problem of acute infections with a combined lesion of the respiratory and digestive systems. The epidemiological and clinical and pathogenetic features of these respiratory and intestinal infections are given.*

Keywords: *coinfection, staphylococcus, superinfection, immunity, virus, respiratory syncytial virus, Rotavirus infection.*

Relevance. The problem of co-infections is extremely relevant today. In particular, it has been proven that from one fifth to one third of all ARIs in the world can be caused by several etiological agents at once, combined in one patient, for example, in 23% of patients with laboratory-confirmed influenza, at least one more respiratory viral pathogen was detected. At the same time, infection can occur simultaneously with two or more pathogens (“associated”, “satellite”, “co-infection”), or a new infection can overlap with an existing disease (“superinfection”). At the same time, infection can occur simultaneously with two or more pathogens (“associated”, “satellite”, “co-infection”), or a new infection can overlap with an existing disease (“superinfection”). The polyetiological nature of ARI in the context of numerous contacts between sick children in hospitals and preschool institutions and the specificity of post-infectious immunity determine the possibility of a high frequency of combined infectious diseases.

The increase in the number of combined acute respiratory infections can be associated with the widespread use of highly sensitive PCR, which allows you to get comprehensive information about pathogens from the first hours of the disease. Thanks to the introduction of the PCR method, the fact of the joint detection of “new” and “traditional” pathogens of ARI has become a reality. According to some reports, up to 70% of intestinal infections have a combined etiology. In the infectious diseases hospital, a combined lesion of the respiratory and digestive tracts was noted in every 4–5th child, the majority of children were dominated by viral infection, and in half of the cases mixed infections took place, more often viral.

Materials and research methods. The most common pathogens for co-infection include rhinoviruses, influenza viruses, parainfluenza, RSV, coronaviruses, metapneumoviruses, bokaviruses and adenoviruses. From viral-viral associations of ARI pathogens in children, there are more common associations of several serotypes of influenza viruses and influenza viruses with the causative agents of adeno-, respiratory syncytial, and parainfluenza infections; in viral-bacterial associations, combinations of adenoviruses with cocci (strepto, pneumatic, staphylococci), rhinoviruses and hemophilic bacilli, various viruses with mycoplasma infection. The combination of several respiratory pathogens, as a rule, aggravates the course of ARI, in particular, co-infection of children with PC-virus and other viruses affecting the respiratory tract, often leads to severe and moderate forms of the disease than PC-mono-infection. The presence of mixed infection with the flu, even in the case of early initiation of etiotropic drugs, significantly reduces the effectiveness of therapy, worsening the prognosis. As a rule, co-infections last longer,

they often have various complications, in children with various chronic pathologies even a mild respiratory infection can cause an exacerbation of a chronic disease.

The increase in the number of combined acute respiratory infections can be associated with the widespread use of highly sensitive PCR, which allows you to get comprehensive information about pathogens from the first hours of the disease. Thanks to the introduction of the PCR method, the fact of the joint detection of “new” and “traditional” pathogens of ARI has become a reality. According to some reports, up to 70% of intestinal infections have a combined etiology. In the infectious diseases hospital, a combined lesion of the respiratory and digestive tracts was noted in every 4–5th child, the majority of children were dominated by viral infection, and in half of the cases mixed infections took place, more often viral.

Results and its discussion. Rotavirus infection often occurs in combination with other pathogens of the OKA, both viral and bacterial etiology. According to studies of domestic authors, among hospitalized children with acute intestinal infections, the occurrence of 2 pathogens was observed in 28% of cases, and in 90% of cases it was a combination of rota and norovirus infections. In addition, in recent years there has been a high frequency of combined forms of pseudotuberculosis and intestinal yersiniosis with other infections, in particular with viral ones. Numerous data confirm the more severe and prolonged course of combined infections, the high proportion of persistent bacterial carriage in these cases, the greater incidence of the development of post-infectious pathology of the gastrointestinal tract. Most of the questions related to co-infections remain unanswered today: the mutual influence of microorganisms on each other in the infected organism, the change in virulence with various combinations of pathogens, the peculiarities of the effect of co-infections on the immune response and patterns of formation of the immune response with different combinations of pathogens. Most of the questions related to co-infections remain unanswered today: the mutual influence of microorganisms on each other in the infected organism, the change in virulence with various combinations of pathogens, the peculiarities of the effect of co-infections on the immune response and patterns of formation of the immune response with different combinations of pathogens Often there is a combination of pathogens of intestinal and respiratory infections, with a more severe course of the infection process, mixed symptoms, a high incidence of post-infectious virus and bacterial carriers.

Conclusions. The combined course of noro-and adenoviral infection is described, which is more severe, with a combined lesion of the respiratory and digestive systems, severe intoxication. Along with the lack of information about the causes of the development of combined infections, the pathomorphosis of these conditions, the mechanisms of interaction of pathogens, the features of treatment tactics for combined infectious diseases, it is necessary to state a weak methodological and regulatory framework on which epidemiological surveillance of combined infections should be based.

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