

Electromagnetic therapy in the treatment of adenovirus infection and influenza

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Adenovirus infection and influenza viruses often lead to a violation of the body's defenses with the subsequent development of exacerbations of chronic diseases and are a trigger of autoimmune diseases. The last year was marked by the most severe course of viral diseases, among which the H1N1 influenza virus turned out to be the most aggressive. Therefore, new approaches to the treatment of this infection are very relevant.

Adenoviral diseases are acute viral diseases that mainly affect the respiratory system, eyes and lymph nodes.

Adenoviruses persist for up to 2 weeks at room temperature, but die extremely quickly from exposure to even small doses of ultraviolet radiation and chlorine.

In view of such instability of adenoviruses, the actual source of infectious disease are patients with clinically expressed or erased forms of the disease. Although, usually, infection occurs by airborne droplets, the possibility of foodborne transmission of infection is not excluded.

The incubation period ranges from 4 to 14 days (usually 5-7 days). Adenoviral diseases usually begin acutely with an increase in body temperature, symptoms of intoxication (chills, headache, weakness, loss of appetite, muscle pain, etc.). But even with a high temperature, fever, the general condition of patients remains satisfactory and the toxicosis of the body does not reach the degree that is characteristic of influenza. In adenoviral diseases that occur only with damage to the upper respiratory tract, the temperature remains for 2-3 days and often does not exceed subfebrile numbers. Nasal congestion and runny nose are early symptoms of adenoviral disease. The pharynx is often affected.

The defeat of the respiratory tract can be combined with inflammation of the conjunctiva of the eye. In general, adenoviral diseases are characterized by a relatively small intoxication with a relatively long low fever and a pronounced inflammatory syndrome. Adenovirus infection is more severe and prolonged in young children [1].

According to doctors, the clinical picture of influenza AH1N1 virus is classic and does not differ from other viral infections. It is possible to identify the strain of this virus only by laboratory means.

On average, the incubation period for H1N1 influenza was 2 days (range 1 to 7 days). The most frequently reported symptoms were fever (67.4% of patients) and cough (69.5%). Diarrhea (2.8%), nausea and vomiting (1.9%) were rarely recorded. Lymphopenia is a laboratory symptom characterized as for adults hearing (68.1%) and for children (92.3%) - usually occurred on day 2 sickness (range 1-3 days), and stopped on day 7 (range 6-9 Hypokalemia was day). observed in 25, 4% of patients. Typical the duration of the fever was 3 days (range 1 to 11 days). The duration of the period of positive PCR results was 6 days (from 1 to 17 days). Independent risk factors for a longer retention of positive

PCR results were more significant for patients under 14 years of age, male sex, and delayed initiation of oseltamivir therapy, when more than 48 hours had elapsed since the onset of the disease [2].

On the 1st day of illness with influenza A / H1N1, there was a sharp increase in temperature, up to 38-40 degrees, headache, runny nose, sore throat, lacrimation, eye irritation, joint pain.

The cough appeared both on the 1st and 2nd day of the disease. If treatment was not started on time, the symptoms worsened. As practice has shown, with a timely visit to a doctor, the patient recovered within 7-9 days. In the next phase, viremia occurred, that is, the virus entered the bloodstream and affected the lungs [3].

The most common cause of death due to infection with influenza A / H1N1 was pneumonia, cardiopulmonary insufficiency.

The influenza virus significantly reduces the anti-infectious resistance of the patient's body and promotes the development of secondary bacterial infections through a number of pathogenetic mechanisms. The most significant factor is the loss of the integrity of the respiratory tract epithelium under the influence of the influenza virus, which has cytolytic activity. In addition, the influenza virus causes an increase in the expression of adhesion molecules on the surface of the affected epithelial cells, to which bacteria can attach, and also induces apoptosis of the main immune defense cells.

(alveolar macrophages and neutrophils), leading to local immunosuppression. In addition to this there is an increase in production to a pro-inflammatory cytokine - interferon- γ , which reduces antibacterial properties of alveolar macrophages, as well as the function of the immune defense cells of the respiratory tract, capable of secreting antibacterial peptides, is impaired. As a result of all of the above, with influenza, there is a special condition of the respiratory tract, predisposing to the development and to a particularly severe course of secondary bacterial pneumonia.

After examination by Brazilian scientists in a clinic at the University of São Paulo, patients with a previously diagnosed infection with the AH1N1 swine flu virus, it was found that all victims of the disease had a syndrome of acute lung injury or NDE, caused in some cases by hemorrhagic bronchitis, in others - pseudomembranous bronchiolitis, that is, PMB. According to the latest data from the US Centers for Disease Control and Prevention (CDC), by mid-November 2009, the US had 50 million cases of the H1N1 influenza virus, 213 thousand hospitalizations and 10,000 deaths [4].

There was a tendency towards illness in people predominantly of the middle age of 30-59 years, with approximately 76% of them suffering from chronic diseases such as heart disease and cancer.

In the 4th City Clinical Hospital in Moscow, three departments and two intensive care departments worked according to the regime of infectious diseases departments with a daily admission of 40 patients with influenza. Due to late admission to the hospital, lightning-fast course of the disease, severe premorbid background, it was not possible to save 8 people. This shows how important it is to start treatment on time and the ability to stop the disease at the very beginning, not allowing it to develop.

We have treated 28 patients with the method of electromagnetic therapy:

9 of them received electromagnetic therapy from the first day of illness, which made it possible to normalize the temperature within 2–12 hours without antipyretic drugs. Complete clinical recovery was observed from 2 to 5 days in the absence of a subsequent state of asthenia.

The frequencies were selected individually, while in 5 patients the frequencies of swine flu approached, in 11 Asian flu, in the rest - adenovirus infection, influenza B. All patients simultaneously received ascorbic acid in standard doses, arbidol 0.2 x 4 times a day, 5 - 7 days.

In the control group, the patients did not have a decrease in temperature for 3-5 days, despite the introduction of antipyretic drugs, antibiotics (amoxicillin 1.0x4r). In patients from 1-3 days, pneumonia joined, which took place with active infusion therapy, antibiotic therapy for 1-2 weeks. The best effect was observed with the timely administration of oseltamivir in conventional doses.

Thus, the early implementation of electromagnetic therapy allows you to quickly stop the manifestation of adenovirus infection and influenza, save the medications used, and reduce the frequency of complications.

Literature

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