

## REASONABLE APPROACHES TO THE TREATMENT OF CHILDREN WITH ACUTE VIRAL RESPIRATORY INFECTIONS AND ALLERGY ANAMNESIS: REALITY FROM THE ALLERGOLOGIST

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**Background.** Respiratory allergy is a group of respiratory diseases. Bronchial asthma (BA) and allergic rhinitis are the most often representatives of this group. Patients with allergy anamnesis are more prone to the acute viral respiratory infections (AVRI) and, vice versa, various infections play an important role in allergy exacerbations. At the moment we know more than 200 viruses, able to affect the respiratory system and ENT (ear–nose–throat) organs. In children AVRI are thrice more frequent than in adults. It can be explained by the immune system immaturity, absence of immune experience, short duration of antiviral immunity and high contagiousness of viruses. **The aim.** To define the peculiarities of shared pathogenesis of ARVI and allergic diseases in children and to reveal the reasonable approaches to their treatment. **Materials and methods.** Analysis of modern literature data on this topic. **Results and discussion.** Minimal persistent inflammation in children with allergy does not have clinical symptoms, but it can activate in case of allergen provocation. Exacerbations can be also caused by ARVI pathogens. A part from that, ARVI induce the increase of immunoglobulins E together with appearance or worsening of the allergic manifestations. The review of 162 scientific publications, dedicated to the virus-induced asthma, showed that the most significant backgrounds of this disease include genetic predisposition and innate and acquired immunity disorders. It was shown that high frequency of ARVI in childhood correlates with the increased risk of BA in future. Respiratory syncytial virus (RSV) is the most often cause of bronchiolitis in children. RSV infection in early childhood increases the predisposition to BA. There are also some genes, shared by both of these diseases. In general, recurrent ARVI are associated with the atopic diseases. They also increase the immune disorders and lead to the increased organism sensibilization. ARVI are selective diseases: rhinoviruses affect nasal mucous membrane, RSV — bronchi and bronchioles, influenza virus — trachea, adenovirus — conjunctiva and lymphoid tissue, parainfluenza virus — the mucous membrane of the larynx. Acute bronchitis is one of the most frequent ARVI and the most frequent cause of antibiotics abuse. Inhalations of sterile decamethoxinum solution (Dekasan, «Yuria-Pharm») can be the other option of treatment. Dekasan is bactericidal and antiviral, and, due to its topical action, it is safe. Decamethoxinum interacts with cell membrane phospholipids and facilitates the lysis of bacterial cell wall. Viricidal effect is due to the decamethoxinum connection to the supercapside lipids and violation of the virus integrity. Inhalational route of drug administration has some advantages: the exact local effect, which is especially important for the children with the allergy anamnesis; high effectiveness and fast effect; safety (absence of sweeteners, coloring and flavoring agents). Randomized open-label comparative study of standard therapy together with Dekasan in children aged 12–18 years with bronchitis in comparison to standard therapy only revealed that Dekasan sped up the decrease of body temperature and cough. **Conclusions.** 1. ARVI and allergic diseases often coexist in one patient. 2. Predisposition to allergy provokes ARVI, and ARVI stimulates the appearance of allergy clinical symptoms. 3. ARVI is an often cause of antibiotic abuse. 4. Inhalations of decamethoxinum (Dekasan, «Yuria-Pharm») is areas on able method of ARVI treatment.

**Key words:** ARVI, bronchial asthma, decamethoxinum, inhalation therapy.