ACUTE RESPIRATORY INFECTIONS IN FREQUENTLY ILL CHILDREN

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Abstract:*Children often suffering from acute respiratory infections are one of the most urgent medical and social problems in modern pediatrics.Official statistics and multicenter socio-hygienic studies show that acute respiratory infections (ARIs) account for more than 90% in the structure of infectious morbidity. At the same time, frequently ill children account for up to 70–85% of all cases of respiratory diseases in pediatric patients on average [1–8].*

Acute respiratory infections are more common among children attending organized preschool groups. More than a third of all cases of ARI in preschool institutions are among children attending nursery and younger groups. Among schoolchildren, primary school students are most susceptible to respiratory infections - up to 50% of all cases of ARI in the team. Children aged 10 years and older suffer from ARI 2–2.5 times less frequently than young children [5]. Frequently ill children (FICH) are a group of children identified during dispensary observation, characterized by a higher incidence of acute respiratory infections than their peers.

The term FICH is not a nosological form of the disease and a diagnosis in the medical sense, therefore, it is not included in the ICD-10 rubric. More than 20 years ago, the domestic pediatric service considered it expedient to single out children prone to increased incidence of ARI into a special category and designate it as a group of frequently ill children in order to rationally organize rehabilitation measures [9]. It was noted that frequent respiratory infections (RI) contribute to a decrease in immunoresistance, disruption of compensatory-adaptive mechanisms, disorders of the functional state of the body (especially the respiratory organs, gastrointestinal tract, autonomic nervous system) and early development of chronic pathology. V.Yu. Albitsky and A.A. Baranov developed age criteria for including children in the FICH group (Table 1) [10].

Key words:*Children, frequently ill children, morbidity, acute respiratory infections, preschool institutions*

Aim of reserch: Reserching of treatment and condition of frequency ill children in preschool institutions.

Results. In relation to children older than 3 years, it is also proposed to use the infection index (II) as a criterion for inclusion in the FICH group, defined as the ratio of the sum of ARI cases during the year to the age of the child: the AI in rarely ill children is 0.2-0.3, in children from the FICH group — 1.1–3.5 [4].

There is also an assessment of the degree of resistance of the organism - the acute morbidity index (AIO), which is determined by the multiplicity of acute diseases suffered by

a child during the year: 0-3 times a year - AIO \u003d 0-0.32 - the body's resistance is good; 4-5 times a year - AIO = 0.33-0.41 - reduced; 6-7 times a year - HI = 0.50-0.60 - low; 8 or more times a year - HI = 0.67 and above - very low. If the follow-up is shorter, resistance is assessed using the Acute Frequent Illness Index, which is calculated as the ratio of the number of acute illnesses experienced to the number of months of observation.

Child's age	Frequency of ARI episodes per year
Up to 1 year	4 or more
1 – 3 years	6 or more
45 years	5 or more
Over 5 years old	4 or more

Table 1. Criteria for including children in the group of frequently ill (V.Yu. Albitsky, A.A. Baranov, 1986)

According to WHO studies, the maximum incidence of ARI occurs at the age of 6 months. up to 6 years, in cities it averages from 4 to 8 cases per year, and in rural areas - 2 times less. Among schoolchildren, the incidence decreases to 2–5 cases per year, and among adults it does not exceed 2–4 diseases during the year [1, 15–18].

The age-related features of the child's immune system are also a factor causing a higher sensitivity to infections and a less differentiated (compared to adults) response of the immune system as a whole to the impact of an infection. Studies have shown that the immune system in children is subject to an ontogenetic sequence of "maturation" of various immune factors. Basically, it ends by the age of 12–14, and by this age, the quantitative and functional characteristics of immunity correspond to those in adults [19].

Among domestic pediatricians, there is an opinion that the number of ARIs up to 8 times a year is not a pathology in itself when it comes to uncomplicated infections in young children, especially during the period of adaptation to the children's team [20–22]. It is believed that ARIs transmitted in early childhood not only stimulate the formation of antiviral immunity, but also contribute to the polarization of the body's immune response in the form of a Th1 variant, i.e. functional maturation of the child's anti-infective immunity. But this situation can be considered as an ontogenetically determined effect of the immune system's tolerance to infection at a frequency of respiratory infections not exceeding this threshold. When the number of ARIs is more than 6–8 times a year, an adequate restoration of the functional characteristics of the immune system does not occur [23, 24].

Recurrent infections are often caused by Haemophylus influenzae (most commonly type b), Streptococcus pneumoniae, S. pyogenes, Staphylococcus aureus, Moraxella (Branhamella) catarrhalis; viruses (mainly rhinoviruses, respiratory syncytial virus, influenza viruses, parainfluenza, adenoviruses); pathogens of the Chlamydia and Mycoplasma families, especially Ch. pneumoniae and M. pneumoniae. Many of these pathogens circulate in the general population year-round and cause disease regardless of

the season, but some are able to form an epidemic situation, which happens almost every year with the influenza virus. But even in the non-epidemic period, ARI is many times higher than any other infectious pathology [18].

In FIC, vagotonic changes in the heart rhythm are detected 10 times more often than in healthy children.

Virological examination of swabs from the nasopharynx revealed a pronounced infection of PSI with respiratory viruses and herpesviruses [28]. A direct relationship was established between the intensity of persistence of viruses and the incidence of ARI: long-term and massive persistence of various viruses in a child's body determines the level of ARI 6-8 or more times during the year. When examining FIC, one can also detect intense microbial colonization of mucous membranes by fungi of the genus Candida, staphylococci, Haemophilus influenzae, Moraxella catarrhalis, enterobacteria, mycoplasmas, and even Pseudomonas aeruginosa [2, 3, 28]. Anaerobes are often found in the sinuses, lacunae of the palatine and pharyngeal tonsils. Pronounced violations of the microbiocenosis of the nasopharynx reduce resistance to pathogenic pathogens, support a long-term inflammatory process, contribute to the violation of the integrity of the epithelial barrier and contribute to the development of chronic intoxication. Established facts indicate that the allocation of a group of PICs in the practice of a doctor is advisable from the point of view of organizing dispensary observation, treatment and prevention of diseases. This makes it possible to break the vicious circle of aggravated immune deficiency in children and the occurrence of functional disorders and chronic pathology [1, 5, 13, 16, 27]. Frequently ill children belong to health group II (children with a burdened biological history, functional and morphological features, i.e. children at risk of developing a chronic disease), medical care for them consists of three main components [9–14]

CONCLUSION

The group of drugs used by specialists as immunocorrective and immunomodulatory agents for the prevention and treatment of ARI is constantly growing, but no significant progress in treatment results has yet been noted. In this regard, the search for new technologies and methods of treatment that combine the safety and effectiveness of the therapy is relevant. Some of them are already presented in the programs and standards for managing children with health problems and chronic diseases [4, 13, 14]. Active specific immunization is considered to be the optimal method of prevention [30, 31]. However, the possibilities of ARI vaccine prevention are limited. This is due to the wide etiological spectrum of acute respiratory infections, while effective and safe vaccines have been developed against only a few respiratory pathogens, such as influenza virus, pneumococcus, and H. influenzae (type b). But, despite such a limited arsenal of means of active immunization against RI, the preventive potential of the available vaccines must be used to the maximum. Thus, anti-influenza vaccination, widely carried out in recent years, has significantly reduced the incidence among those vaccinated [24, 30, 31]. The maximum

reduction in the incidence of RI can be achieved with a combination of vaccination and immunopharmacotherapy.

For the treatment and prevention of ARI, immunomodulators of microbial origin (bacterial vaccines), interferons and endogenous interferon inducers are currently most often used. The therapeutic efficacy and safety of bacterial vaccines has been confirmed by a number of controlled studies [2, 3, 5]. The following groups of bacterial vaccines are distinguished: highly purified bacteriolysates, membrane fractions and ribosomal-proteoglycan complexes. In turn, among highly purified bacteriolysates, systemic (Broncho-munal, Broncho-Vaxom) and topical (IRS19, Imu-don) preparations are distinguished. Preparations containing membrane fractions of the bacterial wall include biostim, as well as licopid, which includes muramyl dipeptide, a synthetic analogue of the immunoactive part of the bacterial cell membrane. Ribosomal-proteoglycan complexes (ribomunyl) contain ribosomes certain respiratory pathogens and membrane factors. The mechanism of action of immunomodulators of microbial origin is associated with a stimulating effect on phagocytes, an increase in interferon production and activation of natural killers.These drugs also have a vaccinating effect against the most common ARI pathogens, the antigens of which are part of the drug.

Phytoadaptogens with a slight immunomodulatory effect (derivatives of Echinacea purpurea, zamaniha, licorice root, etc.) and vitamin-microelement complexes (Pikovit, Alvitil, Jungle, etc.) are also introduced into the complex system of nonspecific prevention of ARI [10, 11, 16, 23-25].

Rehabilitation and improvement of the FICH require a systematic implementation of a complex of medical and social measures. For each child, it is necessary to look for individual methods of recovery, taking into account etiopathogenesis, the influence of environmental factors that form the predisposition of the child's body to frequent respiratory diseases. The rational use of immunoprophylaxis and pharmacotherapy in combination with recreational activities and family education, the implementation of environmental programs should contribute to solving the problem of frequently ill children.

REFERENCES:

1. Tatochenko V.K., Ozeretskovsky N.A. Immunoprophylaxis - M., 2003. - S. 128.

2. Yartsev M.N., Yakovleva K.P. Immune deficiency, frequently ill children and immunocorrection // Issues of modern pediatrics - 2005, vol. 4, No. 6. - P. 33-38.

3. Sentsova T.B. Modern immunomodulators; Reference book of the polyclinic doctor. - 2004, No. 5. - S. 27-32.

4. Immunology of the infectious process: A guide for physicians / Ed. V.I. Pokrovsky, S.P. Gordienko, V.I. Litvinov. - M.: RAMN, 1994. - S. 305.

5. Zaplatnikov A.L. Clinical and pathogenetic substantiation of immunotherapy and immunoprophylaxis of viral and bacterial infections in children: Abstract of the thesis. dis. ... Dr. med. Sciences. - M., 2003.

6. Markova T.P., Chuvirov D.G. Prevention of respiratory infections / Russian medical journal. - 2004, No. 1. - S. 24.

7. Daele J., Zicot A.F. Humoral immunodeficiency in recurrent upper respiratory tract infections. Some basic, clinical and therapeutic features // Acta Otorhinolaryngol. Belg. — 2000; 54(3): 373.

8. Romantsev M.G., Ershov F.I. Frequently ill children: modern pharmacotherapy. - M.: "GEOTAR-MED", 2006. - S. 192.

9. Bulgakova V.A. The influence of viral infections on the development and course of atopic diseases in children: Abstract of the thesis. dis. .cand. honey. Sciences. - M., 2002, 25 p.

10. Zemskov A.M., Karaulov A.V., Zemskov V.M. Combined immunocorrection. - M .: Nauka, 1994. - S. 260.

11. Kostinov M.P. Vaccination of Children with Impaired Health: A Practical Guide for Physicians. - M .: Medicine for everyone, 2000. - S. 117.

12. Uchaikin V.F., Shamsheva O.V. Guide to clinical vaccinology. -M., "GEOTAR-MED", 2006. - S. 592.

6. Исраилова, М. Н. (2016). Новые педтехнологии изучения латинского языка в медицинских вузах. *Психология и педагогика: методика и проблемы практического применения*, (53), 66-71.

7. Исраилова, М. Н. (2017). Формирование принципов устойчивого развития в обучении иностранным языкам. *Международные научные исследования*, (1), 161-163.

8. Исраилова, М. Н. (2022, March). К ВОПРОСУ О СОВРЕМЕННОМ СОСТОЯНИИ ЛАТЫНИ. In *Конференция состоялась* (Vol. 5, p. 414).

9. Israilova, M. N. (2017). New Pedagogical Technologies of Studying Latin in Medical Schools. *Eastern European Scientific Journal*, (1).

10. Israilova, M. N., & Yuldasheva, D. Y. (2021). PECULIARITIES OF TEACHING LATIN LANGUAGE AT MEDICAL UNIVERSITIES. *Eastern European Scientific Journal*, (2).

11. Исраилова, М. Н. (2021, November). ТЕХНОЛОГИЯ ИЗУЧЕНИЯ ЛАТИНСКОГО ЯЗЫКА В МЕДИЦИНСКОМ ВУЗЕ. In *International journal of conference series on education and social sciences (Online)* (Vol. 1, No. 2).

12. Исраилова, М. Н., Юлдашева, Д. Ю., & Сайфуллаева, Л. С. (2021). Педагогические технологии на занятиях по латинскому языку в медицинском вузе. *Вестник науки и образования*, (16-2 (119)), 47-49.

13. Исраилова, М. Н. (2019). Принципы преподавания латинского языка в медицинском вузе. *Academy*, (12 (51)), 58-60.

14. Исраилова, М. Н. (2022, August). К ВОПРОСУ О СОВРЕМЕННОМ СОСТОЯНИИ ЛАТЫНИ: Исраилова Махсуда Нигматуллаевна, Доцент кафедры Латинского языка ТГСИ. In *Научно-практическая конференция*.

15. Исраилова, М. Н., & Сайфуллаева, Л. С. (2022, August). ТИББИЁТ ТАЪЛИМ МУАССАСИДА ЛОТИН ТИЛИНИ ЎҚИТИШ ЖАРАЁНИДА ИНТЕЛЛЕКТУАЛ-МАДАНИЙ РИВОЖЛАНИШ: Исраилова МН доцент PhD, Сайфуллаева ЛС ассистент Тошкент давлат стоматология институти Sayfullayevalola1@ gmail. com. In *Научно-практическая конференция*.

16. Исраилова, М. Н. (2022, August). ЭФФЕКТИВНЫЕ ТЕХНОЛОГИИ ИЗУЧЕНИЯ ЛАТИНСКОГО ЯЗЫКА НА ОСНОВЕ МОДЕЛИРОВАНИЯ ДИДАКТИЧЕСКОЙ СИСТЕМЫ ИНТЕЛЕКТУАЛЬНО-КУЛЬТУРНОГО РАЗВИТИЯ: Исраилова МН, доц. PhD Ташкентский Государственный Стоматологический Институт oydinboymatova80@ gmail. com. In *Научно-практическая конференция*.

17. Исраилова, М. Н. (2018). ИННОВАЦИИ В МЕДИЦИНСКОМ ОБРАЗОВАНИИ ПОСРЕДСТВОМ ВНЕДРЕНИЯ ПЕДАГОГИЧЕСКИХ ТЕХНОЛОГИЙ. In *INTERNATIONAL SCIENTIFIC REVIEW OF THE PROBLEMS AND PROSPECTS OF MODERN SCIENCE AND EDUCATION* (pp. 68-69).

18. Исраилова, М. Н., Абидова, М. И., & Юлдашева, Д. Ю. (2022). ИСПОЛЬЗОВАНИЕ ИНТЕРАКТИВНЫХ МЕТОДОВ НА ЗАНЯТИЯХ ИНОСТРАННОГО ЯЗЫКА ДЛЯ РАЗВИТИЯ МЕЖКУЛЬТУРНОЙ КОММУНИКАТИВНОЙ КОМПЕТЕНЦИИ У СТУДЕНТОВ. *Экономика и социум*, (11-2 (102)), 422-425.

19. Исраилова, М. Н., Абидова, М. И., & Сайфуллаева, Л. С. (2022). ВНЕДРЕНИЕ СОВРЕМЕННЫХ МЕТОДОВ И ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ В ПРОЦЕСС ОБУЧЕНИЯ ЛАТИНСКОГО ЯЗЫКА. *Экономика и социум*, (11-2 (102)), 426-429.

20. Исмоилова, М. Н., & Кобилов, К. Х. ВЕСТНИК НАУКИ И ОБРАЗОВАНИЯ. *ВЕСТНИК НАУКИ И ОБРАЗОВАНИЯ Учредители: Олимп*, 60-62.

21. Исраилова, М., Сайфуллаева, Л., & Дулдулова, Н. (2023). Lotin tilini o ‘qitish jarayonida axborot texnologiyalarining o ‘rni. *Общество и инновации*, *4*(2), 148-151.

22. Nig’matillayevna, I. M. (2022). BENEFITS OF USING VIDEO IN ELT. *American Journal of Research in Humanities and Social Sciences*, *6*, 7-12.

23. Nigmatullaevna, I. M. THE USE OF INNOVATIVE TECHNOLOGIES IN THE PROCESS OF TEACHING MEDICAL LATIN.

24. жери Контактыктык, Ж. Кызыл-Кыя шаарынын участкалык шайлоо комиссияларынын сапаттык курамы. *Восток*, *14*, 1.

25. Беляева, Н. Л. (2021). ШКОЛЬНАЯ СЛУЖБА ПРИМИРЕНИЯ КАК СОВРЕМЕННАЯ ФОРМА ПРОФИЛАКТИКИ. In *БЕЗОПАСНОЕ ДЕТСТВО КАК ПРАВОВОЙ И СОЦИАЛЬНО-ПЕДАГОГИЧЕСКИЙ КОНЦЕПТ* (pp. 27-30).