ondary progression: with the visual debut – in 12,4 ± 6,8 years, and with the sensitive debut – in 19,5 ± 15,6 years (р 2,6 ‹0.01). The disease had less favorable course in case of the beginning from paresis and, especially, coordinaton disorders; secondary progression and the disability of patients became earlier.

In case of the polisymptom debut of the remittent MS the most diverse combination of the symptoms, unfavorable further flow: short transition rates of secondary progression – in 7 ± 4.8 years, of the first remission – in 2,2 ± 2,2 years, and the high rate of progression were noted.

In case of primary progressive MS neurological symptoms were often presented the motor disorders in the form of lower spastic paraparesis combined with the sensitive, cerebellar, pelvic disorders. Further course was steady progressive without remission.

Conclusions. Thus, all versions of MS debut deserved serious consideration and detailed study with the objictification of the patients' complaints with additional research methods, observation in dynamics in each case. The awareness of physicians about different variants of the MS debut allowed suspecting the disease on the early stages and providing the research to clarify the diagnosis and to start appropriate therapy.

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EFFICIENCY OF PATHOGENETIC THERAPY OF RESPIRATORY VIRAL INFECTIONS AND LOWER AIRWAY OBSTRUCTION IN CHILDREN

Kholodok L.G., Muzichenko I. V., Manukyan H.S.

Amur State Medical Academy, Blagoveshchensk, Russia

Abstract The child's respiratory system is constantly exposed to infective agents and acute respiratory viral infections are normal in children. SARS constitute about 90% of all infectious diseases of childhood, it is the most common disease in ambulatory practice. According to the Ministry of Health of the Russian Federation 28,332,821 cases of acute upper respiratory tract infections were reported in 2015 , including 20,617,641 cases in children under 17 years (in 2014 more than 30 million cases of acute upper respiratory tract infections, including 20.3 million in children under 17 years). However, there are still many differences in terminology and in terms of etiology, pathogenesis, treatment, prevention and monitoring of this category of children in our country.

 The global burden of acute respiratory infections in children is huge and the World Health Organization (WHO) estimates that approximately one-third of all children's deaths are due to acute respiratory infections. Early-life viral infection causes acute illness and can be associated with the development of wheezing and asthma in later life. The most commonly detected viruses are respiratory syncytial virus (RSV), rhinovirus (RV), and influenza virus. In this review we explore the complete picture from epidemiology and virology to clinical impact and immunology and efficiency of pathogenetic therapy of acute respiratory viral infections in children.

Three striking aspects are emerging. The first is the degree of similarity: although the infecting viruses are all different, the clinical outcome, viral evasion strategies, immune response, and long-term scueals share many common features. The second is the interplay between the child immune system and viral infection: the immaturity of the child immune system alters the outcome of viral infection, but at the same time, viral infection shapes the development of the child immune system and its future responses. Finally, both the virus and the immune response contribute to damage to the lungs and subsequent disease, and therefore, any prevention or treatment needs to address both of these factors.

Introduction The aim of this prospective study was to determine the epidemiology of respiratory viruses responsible for acute respiratory viral infections and efficiency of pathogenetic therapy of acute respiratory viral infections and lower airway obstruction in infants and young children in Blagoveshchensk. All children ≤5 years of age, including children with acute respiratory infections, were consecutively admitted to Children's City Clinical Hospital of Blagoveshchensk over 7-month period between October 2015 and April 2016. A multiplex polymerase chain reaction (PCR) for viral detection was performed on nasopharyngeal aspirates. Analysis were conducted using univariate statistical methods. At least one respiratory virus among 759 infants and young children was detected in 371 samples (49%). The most prevalent viruses were parainfluenza virus (PIV

43%; n = 159), adenovirus (15%; n = 55), and respiratory syncytial virus (RSV 17%; n = 63). Dual or multiple viral infections were found in 67 cases (18%). The most prominent symptoms of the cohort were fever (54 %; n = 410), tachypnoea (77%; n = 584), and runny nose (61%; n = 463). The majority had lower airway obstruction (59%; n = 447) . Studies indicated that respiratory viruses are highly prevalent in children ≤5 years presenting with acute respiratory infections (PIV is the most prominent) in Blagoveshchensk.

All children with lower airway obstruction received bronchodilators, and 63% (n = 478) of them received inhaled corticosteroids. The treatment was very effective in 94% (n = 420) of cases, 6% (n = 27) of cases were aggravate by inadequate approach to the treatment of parents, the expensive drugs and the social status of families, and ect. It is worth noting that the antitussives and expectorants have not been assigned to anyone. Expectorant drugs can only provoke obstruction, antitussives suppress the cough reflex, which is not logical. The mean duration of episodes did not exceed 6-8 days in 64-70% of children treated with bronchodilators and ICS.

From the bedside : symptoms, signs and treatment

Upper Respiratory Tract Infection

Most respiratory virus infections in early childhood are confined to the upper respiratory tract, leading to symptoms of the common cold, with coryza, cough, and hoarseness. Upon examination, rhinitis and pharyngitis are found . Upper respiratory tract infection (URTI) in infants is often accompanied by fever and may lead to lethargy and poor feeding. Specific treatment is usually neither available nor required. However, analgesics/antipyretics and, in some cases, nasal decongestants may be helpful in reducing discomfort and symptoms, making feeding easier, and allowing an adequate supply of oral fluids.

Lower Respiratory Tract Infection

About one-third of infants with respiratory viral infections develop lower respiratory tract symptoms such as tachypnea, wheeze, severe cough, breathlessness, and respiratory distress. Cough is the most common symptom and it is an important physiological protective reflex that clears airways of secretions and inhaled or aspirated material. It is not logical to try to suppress a cough that has a protective role. It is important to try to make a diagnosis and treat the underlying cause of cough. So, it is not necessary to treat cough, as many doctors do, they should understand that the cough is just a symptom . Potential causes in children are different from causes in adults.

These symptoms may be accompanied by clinical signs including nasal flaring; jugular, intercostal, and thoracic indrawings; rarely cyanosis; and, on auscultation of the chest wheeze, crackles, crepitations, and inspiratory rhonchi or generally reduced breath sounds due to air trapping and peripheral hyperinflation of the lung. In RSV infection, recurrent episodes of apnea are a threat to infants less than 6 months of age.

Some clinicians make distinctions between bronchitis, bronchiolitis, and pneumonia to describe predominantly proximal (large)-airway disease, small (conducting)-airway disease, or involvement of the alveolar compartment. However, the lack of internationally agreed-upon definitions makes the use of these pathological descriptions as clinical diagnoses contentious and, since the treatment is the same regardless of these distinctions, probably irrelevant. For infants with LRTI treated as outpatients, a virological diagnosis is often not sought. This is justifiable for healthy infants, since the virological diagnosis has not predicted the severity or length of disease, nor does it usually lead to specific therapy. Most respiratory viruses can cause LRTI of various severities and with a wide range of manifestations, and for most respiratory viruses, clinically useful antiviral agents do not exist. However, the detection of a viral cause of LRTI can be useful since it reduces the use of antibiotics, which is unwarranted in most cases of viral LRTI. An early viral diagnosis is useful for infants at risk of severe LRTI (e.g., prematurity and congenital heart disease).

Antiviral Drugs Currently in Use

For influenza A and B viruses, the neuraminidase inhibitors oseltamivir and zanamivir are licensed as antiviral drugs but only for patients between the ages of 1 and 5 years, respectively, and not for infants. These drugs can be used for postexposure prophylaxis and the treatment of influenza virus (IV) if they can be given within 48 h after exposure or 36 h after first symptoms. Neuraminidase inhibitors are recommended only for children with chronic morbidity who are at an increased risk of severe influenza-induced disease. Neuraminidase inhibitors are not helpful for established influenza infection and do not improve severe LRTI. Ribavirin is a very effective antiviral drug against RSV in vitro and licensed for use by inhalation for severe RSV bronchiolitis. In addition, regarding clinical use, ribavirin has generally been thought to be disappointing and to provide little or no benefit, possibly because once developed, the severe inflammation in RSV bronchiolitis may be maintained independently of the presence of live RSV virions. However, recent studies reported about decreases in postbronchiolitic asthma and recurrent wheeze in 6-year-old children who were treated with ribavirin during RSV bronchiolitis .The anti-RSV antibody palivizumab, not being technically an antiviral drug, reduces the number of RSV cases requiring hospitalization for at-risk infants.

RSV immunoprophylaxis is recommended by the American Academy of Pediatrics for children under 2 years of age with chronic lung disease or with congenital heart disease (e.g., congestive heart failure, pulmo-

nary hypertension, and cyanotic heart disease). Importantly, palivizumab does not have beneficial effects on established RSV bronchiolitis in immunocompetent infants and is therefore used for treatment only on an individual basis for immunocompromised patients. A new anti-RSV antibody derived from palivizumab with enhanced anti-RSV neutralizing activity, motavizumab, is currently being evaluated in clinical trials (WHO).

Bronchodilators, Corticosteroids and Antibiotics

At the absence of effective antivirals for severe infant LRTI, medical treatment is focused on drugs designed to overcome airway obstruction and the resulting respiratory distress. In analogy to asthma treatment, bronchodilators using widely, including β2 agonists, nebulized epinephrine, and antimuscarinics such as ipatropium bromide. Bronchodilator treatment can improve clinical symptom scores, reduce the duration of hospitalization, and clinical scores and oxygen saturation levels improved more rapidly. American Academy of Pediatrics claims that inhaled bronchodilators should not be used routinely for the management of bronchiolitis . European Respiratory Society and American Academy of Pediatrics recommends the use of hypertonic saline inhalation for the treatment of bronchiolitis. One possible exception is for LRTI with underlying reactive-airway disease and where wheeze is the hallmark symptom of LRTI, where short-acting β2 agonists may be effective for individual patients.

Another widely used approach is the use of corticosteroids in order to control airway inflammation and subsequent respiratory symptoms. Inhaled corticosteroids (ICS) are the cornerstone of lower airway obstruction treatment in adults and children. They remain the most effective anti-inflammatory drugs for the treatment of lower airway obstruction and asthma. Since their introduction in the early 1970s, no other equally effective drug for asthma treatment has become available, and this will probably remain so for the foreseeable future. Treatment with ICS reduces symptoms, improves lung function, reduces bronchial hyperresponsiveness and decreases asthma morbidity. A recent task force from the European Respiratory Society on preschool wheeze defined two different phenotypes: episodic viral wheeze, wheeze that occurs only during respiratory viral infections, and multiple-trigger wheeze, where wheeze also occurs in between viral episodes.

A multitude of studies using low-dose and high-dose inhaled corticosteroids as well as systemic application yielded satisfactory results. The majority of those studies managed to demonstrate relevant reductions in LRTI symptoms, length of hospital stay, and need for mechanical ventilation. The effect may vary according to the infecting virus.

Antibiotics are not necessary to treat viral respiratory tract infections. Judicious, evidence-based use of antibiotics will help contain costs and prevent adverse effects and drug resistance.

Table 1. Usual Dosages for Quick- relif Medications

Table 1. Usual Dosages for Quick- relif Medications		
Short- acting Inhaled Beta- Agonists		
Salbutamol (Ventolin)	MDI, 100mcg/puff, 200 puffs	2 puffs tid-qid prn
Albuterol	MDI, 90mcg/puff, 200 puffs	2 puffs tid-qid prn
Albuterol	Nebulizer solution 5mg/ml 2.5mg/ml 1.25mg/3ml 0.63mg/3ml	0.05mg/kg (minimum 1.25mg, maximum 2.5mg) in 3 ml of saline q 4 to 6 h
Salbutamol	Nebulizer solution 2.5mg/2.5ml	2.5mg in 2 ml of saline q 4 to 6 h
Anticholinergics		
Ipratropium	Nebulizer solution 0.25mg/ml	0.25 to 0.5 mg q 6 h
Ipratropium with albuterol	Nebulizer solution 0.5mg/3ml ipratropium bromide	1.5 to 3 ml q 8 h

Table 2. Estimated Comparative Daily Dosages for Inhaled Corticosteroids			
Drug	Low Daily Dose	Medium Daily Dose	Medium Daily Dose
Budesonide DPI 200mcg/ inhalation	200 to 400 mcg	400 to 800 mcg	>800mcg to 2.0mg
Budesonide inhalation suspension (Pulmicort) 0.25mg/1ml, 0.5mg/1ml	0.5mg	1mg	2mg
Fluticasone MDI: 44,110, or 220 mcg/puff	88 to 176 mcg	176 to 440mcg	>440mcg
Fluticasone DPI 50, 100, or 250 mcg/ inhalation	100 to 200 mcg	200 to 400 mcg	>400mcg

Bacterial Coinfection

One interesting side effect of respiratory viral infection is increased susceptibility to bacterial coinfection. Viral infection enhances bacterial infection in two ways, altering physical barriers and altering immune system barriers. Viral infection (and the subsequent immune response) may damage the lung epithelia, increasing bacterial entry.The neuraminidase protein from influenza virus plays an active role in thinning mucus and exposing receptors on epithelial cells, leading to increased bacterial infectivity. Viral infection can also skew the immune response, allowing greater infection or inhibit neutrophilia, leading to increased bacterial infection. Bacterial coinfection often happens in the later stages of viral infection, during the dampening of the immune response. The incidence and importance of subsequent bacterial coinfection have a considerable impact on the prescription of antibiotics.

Conclusion How should infant infection be controlled? In part, this depends upon the conclusions drawn from the immunopathology-versus-viral-pathology arguments. If viral pathology is the critical aspect, then specific, preventative treatments including vaccines and antiviral drugs are more appropriate. If, however, immunopathology is foremost, then methods to limit the immune system and careful assessment of vaccines for immunopathology are required. How reliable can be a vaccine? There is an influenza virus vaccine, and this is now routinely administered to all children in the Russian Federation. Since 2006, influenza vaccination is included in the National calendar of preventive vaccination of the Russian Federation. Annual influenza vaccination to be: children attending pre-school institutions, students grades 1-11, students of higher and secondary vocational schools, adults who work in certain professions and positions (employees of medical and educational institutions, transport, public utilities and others.), adults over 60 years. However, be aware that vaccination against flu only protects against influenza does not protect against other respiratory viral infections, and bird flu; influenza vaccination is only part of a comprehensive prevention "cold" diseases in the autumn-winter season, it does not preclude the need for other preventive measures (see. below) and does not reduce the rate of incidence of other acute respiratory viral infection in a particular person.

Expectorant drugs can only provoke obstruction, antitussives suppress the cough reflex, which is not logical.

Antibiotics are used only during bacterial coinfection.

At the absence of effective antivirals for severe infant LRTI, medical treatment is focused on β2 agonists and inhaled corticosteroids, wich can help to improve clinical symptom scores, reduce the duration of hospitalization, and as a result , clinical scores and oxygen saturation levels are getting improved more rapidly. Considering the therapeutic efficacy of β2 agonists and inhaled corticosteroids, we can conclude usefulness of these drugs in the treatment of respiratory viral infections confirmed.Inhaled corticosteroids remain the most effective anti-inflammatory therapy for the treatment of children with lower airway obstruction. One of the ways of polypharmacy solving is using safe drugs with high compliance, a multi-purpose area of action, which reduces the need for other drugs.

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CLINICAL FEATURES OF MYASTHENIA IN THE AMUR REGION

Konkova D.Y., Karnaukh V.N.

Amur State Medical Academy, Blagoveshchensk, Russia

Abstract The clinical features of the disease – age, the debut features and the course were analyzed in patients with myasthenia. The revealed clinical features conformed to the literature data: the prevalence of women among the patients, generalized form, oculomotor disorders and ptosis as the first symptoms, the debut at a young age.

Key words: myasthenia gravis, clinical features, generalization, thymus gland.

Myasthenia gravis is a serious autoimmune neurological disease associated with impaired neuromuscular transmission. The main clinical manifestations are fatigue and progressive weakness of striated muscles.

The purpose of the research was to identify some clinical features of myasthenia gravis in the Amur region.

Materials and methods. The out-patient's cards and the case histories of patients with myasthenia gravis, being on the dispensary in the Amur regional polyclinics and inpatient treatment in the neurology department