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ANTIBACTERIAL DRUGS FOR RESPIRATORY INFECTIONS IN CHILDREN IN OUTPATIENT PRACTICE

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Abstract:

Despite significant progress in the development of clinical pharmacology, the issues of the validity of prescribing medicines for acute respiratory infections remain relevant. The most important part of the pharmacotherapy of this pathology is the solution of the issue of the use of antibacterial drugs (ABP). Considering that the overwhelming majority of ARI (80-90%) have a viral etiology, the appointment of antibacterial drugs is justified only in rare cases: if there are irrefutable data confirming the presence of bacterial inflammation, or the probability of the latter is high according to clinical examination and laboratory examination.

Keywords: Antibacterial treatment, pediatricians, multidirectional maladaptive effects, micro ecological system

In acute respiratory pathology, it is possible to judge the role of bacterial pathogens in the realization of the disease by the features of the clinical picture, changes in peripheral blood, CRP, procalcitonin test and bacteriological research data. However, at the polyclinic level, it is not always possible to conduct a bacteriological study.

The irrational use of antibacterial drugs causes an increase in the resistance of pathogenic microorganisms, a violation of sanogenesis occurs, which leads to a violation of the intestinal microbiocenosis, a violation of local immunity, the formation of chronic foci of infection. The frequency of drug resistance increases with an increase in the duration of previous antibacterial treatment. The use of antibacterial drugs in children with ARI does not prevent the development of bacterial complications. Often, the use of AB is accompanied by the development of adverse reactions, for example, allergic, which most often indicates the absence of indications for their appointment. It is obvious that the unjustified use of antibiotics leads to excessive treatment costs.

To assess sick children with uncomplicated forms of ARI, 200 outpatient records of children aged from 1 month to 17 years were analyzed, of which 90 boys (45%), 110 girls (55%).

When analyzing the frequency of detection of nosological forms of ARI in children by pediatricians at the outpatient stage, it was revealed that rhinopharyngitis is most often diagnosed, which was 138 (69%) in all polyclinics. As a result of a comparative analysis of a group of children with rhinopharyngitis, it was revealed that tracheitis is in second place in 18 (9%) cases (p=0.001), otitis media is in third place in 14 (7%) (p=0.001).

Most often, antibacterial therapy for the treatment of ARI is prescribed by primary care physicians. When analyzing the frequency of prescribing antibacterial drugs, it was revealed that in 85% of cases doctors did not prescribe ABT for the treatment of acute respiratory infections and only in 30 (15%) they were used, the frequency of antibiotic use was approximately the same in children of different age groups, regardless of age.

To date, it is known that respiratory tract infections of bacterial etiology are an indication for the appointment of antibacterial drugs. The main criteria for choosing antibacterial drugs for empirical therapy of the respiratory tract are: the activity of the drug against the most common pathogens of infections, ease of use and minimal induction of resistance. Unfortunately, it is very difficult to solve the question of the nature of the infection at the reception at the polyclinic, since there are no simple methods that allow you to quickly identify the true pathogen.

A detailed analysis revealed that in tonsilopharyngitis, antibacterial drugs of the penicillin group (under the trade name flemoxin solutab) were most often prescribed in 50% of cases, 25% protected penicillins (amoxiclav), 12.5% macrolides (sumamed), 12.5% cephalosporins of the 3rd generation (suprax).

In turn, for otitis, drugs of the penicillin group were prescribed in 57.1% (amoxicillin, flemoxin solutab), protected penicillins 24.6% (amoxiclav, augmentin) and macrolides in 14.3% (sumamed). When evaluating the choice of ABP for rhinovaryngitis, it was revealed that penicillins (amoxicillin, flemoxin solutab) were most often prescribed in 50%, protected

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penicillins (amoxiclav) in 33.3% and macrolides (sumamed) in 16.7% of cases.

Analysis of the results showed that the appointment of antibacterial therapy by doctors was carried out with the following clinical symptoms: preservation of subfebrile body temperature (up to 38 ° C) for more than three days, hyperemia of the tonsils, the presence of single small-bubbly wheezing in the lungs, otitis media. When evaluating the route of administration of ABT, it was revealed that the most common therapy was administered orally in 186 (93.3%) cases. When evaluating the choice of dosage form, doctors most often prescribed tablet forms of ABT 64 (32%), in 40 (20%) suspensions, solution in 8 (4%). The average duration of the course of treatment was 5-7 days.

The results of the analysis showed that ABT was prescribed for ARI in 15% of cases. The study of the structure of prescribed drugs showed that, in general, district pediatricians most often use penicillin and protected penicillin. The use of penicillin-type drugs and, first of all, amoxicillin, complies with the recommendations of the Union of Pediatricians of Russia and the Russian Respiratory Society. Next in frequency of assignment are microclines.

It should be noted that the main route of administration of ABT is oral; therefore the pediatrician adheres to the tactics of "Non-inject able childhood". Modern oral dosage forms of ABP are characterized by high bioavailability. The high-tech dosage forms of antibiotics created in recent years in the form of dispersible Solutab tablets are characterized by high bioavailability (93-100%), and the concentrations created by them in the blood practically do not differ from those achieved with intravenous administration of the drug.

Taking into account the anatomical and physiological features of a child's body in the first years of life, first of all, the state of his neuroendocrine, immune, digestive systems, intensively occurring metabolic processes, rapid growth and development, it becomes obvious that he has significantly fewer reserve opportunities to resist the multidirectional maladaptive effects of intestinal pathobiocenosis. At the same time, the consequence of this effect is violations of the genetically determined maturation program of the above-mentioned adaptive rapid response systems and their integration, destabilization of homeostasis, perversion of the course of biochemical reactions and physiological processes, which affects the physical, neuropsychic development of the child, his resistance and morbidity.

In this connection, there is a need for a more in-depth study of the state of intestinal microecology in children with different levels and nature of respiratory morbidity, primarily during its intensive formation, at an early age, which will allow timely correction of dysbiotic disorders and prevent their consequences, including frequent acute respiratory diseases (ARI) and their complicated course.

Currently, the results of scientific studies proving the pathogenetic role of dysbiosis of the large intestine and vagina in the development of pathology of pregnancy, childbirth and the postpartum period in women of reproductive age have become known. Based on these data, the high incidence of complications during the perinatal period in the infants we examined can be explained by the presence of dysbiotic disorders in the microecological system of the large intestine and lower genital tract in their mothers during pregnancy.

The relationship between the features of the clinical course of recurrent acute respiratory infections in early-age children with the degree of severity and nature of microecological disorders in the intestinal microbiota was found. Consequently, intestinal dysbiosis should be considered an important pathogenetic factor in reducing anti-infective resistance in young children with the formation of a tendency to frequent development of respiratory infections and their prolonged, complicated course. In this regard, it is recommended to carry out adequate correction of intestinal dysbiosis in early-age children in order to create optimal conditions for the maturation of their immune system and reduce the frequency and duration of acute respiratory infections episodes.

The study revealed a problem in the state of the microecology of the large intestine and in the EBD group, which allows us to conclude that these children do not have physiological conditions for the maturation of the immune system. In this connection, in the future there is a high risk of transition of a significant part of children from the group of episodically ill to the category of frequently and long-term ill. Consequently, children of this group also need to take measures to correct the identified microecological disorders for preventive purposes.

LITERATURES:

1. Shenderov B.A. Medical microbial ecology and functional nutrition. Vol. 1: Microflora of humans and animals. M.: GRANT, 1998. 288 p.

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2. Voevodin D.A. The role of immunological reactions in the adaptive process in children with type 1 diabetes mellitus, phylogenetic concept of antistress adaptation // Immunology. 2003. No. 2. pp.103-107.
3. Possibilities of using synbiotics to reduce the incidence of frequently ill children attending preschool institutions / L.V. Feklisova, A.M. Amerkhanova, O.G. Zhilenkova, etc. // Questions of practical pediatrics. - 2007. - Vol. 2, No. 6. - pp. 53-59.
4. Khavkin A.I. Microflora of the digestive tract.- M., 2006.
5. The role of intestinal and oropharyngeal dysbiosis in the formation of a contingent of often and long-term respiratory diseases of young children
6. O.V. Lutovina, V.A. Shovkun, L.I. Vasilyeva // International Journal on Immunorehabilitation. - 2010. - Volume 12. - No. 2. - P. 209.
7. Akhmina N.I. Antenatal formation of children's health.- M., 2005.