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SOME ASPECTS OF INCREASING THE EFFECTIVENESS OF PHARMACOTHERAPY FOR ACUTE PNEUMONIA IN YOUNG CHILDREN.

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Abstract:

Endogenous intoxication syndrome (EIS) continues to be one of the most pressing problems in pediatrics to this day. About 90% of all pathological conditions in pediatrics occur against the background of endogenous intoxication.

Keywords: Endogenous intoxication, pneumonia in children, effectiveness of drugs.

INTRODUCTION:

Etiotropic treatment of any disease requires, first of all, knowledge of the pathogen and its sensitivity to antibiotics. Since, when meeting with an acute patient, the doctor cannot delay the start of treatment until these issues are clarified, his empirical prescriptions should be carried out taking into account the likelihood of a particular pathogen and its sensitivity. Recent work has shown that the accuracy of the empirical choice of an antimicrobial drug can be very high (80-70%) when taking into account a number of obvious factors.

When resolving this issue, one should first of all take into account where the pneumonia developed, since in terms of etiology, community-acquired ("home-acquired", community-acquired) pneumonia is fundamentally different from hospital-acquired pneumonia. The latter also includes cases of pneumonia developing in a child recently (less than 7 days) discharged from the hospital, as well as in a child receiving antibiotics at home. A special case is pneumonia in people with immunodeficiency, which is distinguished by both its particular severity with "common" pathogens and the participation of opportunistic flora. The Classification of Nonspecific Respiratory Diseases in Children lists the probable causative agents of pneumonia of these main groups, however, to narrow the range of possible causative agents, it is advisable to supplement these data with two other characteristics - age and the nature of pneumonia.

Community-acquired pneumonia is common in children of all ages, but their etiology can differ significantly. Taking age into account allows you to significantly narrow the range of likely pathogens of pneumonia and thereby increase the accuracy of the empirical choice of antibiotic.

The choice of drug is greatly influenced by the type of pneumonia, determined by fairly clear clinical and (or) radiological criteria. In children in the first 6 months of life, it is easy to distinguish pneumonia that occurs without fever (afebrile) from "classic" pneumonia, accompanied by febrility; Radiologically, the latter appear as focal, segmental or confluent, while afebrile forms typically have diffuse damage to both lungs. At an older age, it is also easy to distinguish atypical forms, accompanied by an abundance of wheezing (previously called bronchopneumonia) and inhomogeneous changes on the radiograph, from pneumonia with pronounced percussion changes in the absence or a small amount of wheezing and homogeneous focal, segmental or lobar shadows on the radiograph.

PURPOSE OF THE STUDY: Improving the effectiveness of pharmacotherapy for acute pneumonia in young children.

In the 0-6 month age group, about 50% of pneumonias are of nosocomial origin, while community-acquired pneumonia is relatively rare [3]. They are usually associated with infection from a sibling or an adult and develop against the background of a respiratory viral infection, which obviously facilitates bacterial invasion. In 1/4 of children, pneumonia is associated with dysphagia and reflux, leading to habitual aspiration of food; in 7-10%, pneumonia is the first manifestation of a systemic disease, for example, primary immunodeficiency or cystic fibrosis. The causative agents are usually Staphylococcus aureus and Escherichia coli, less commonly Moraxella (Branchamella) catharalis. In children with habitual aspiration of food, in more than

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half of the cases, other representatives of the intestinal flora are also isolated, often with multiple resistance. In the first half of the year, the role of pathogens that cause pneumonia due to infection in the perinatal period is significant (18% in Moscow). Among them, chlamydial pneumonia is most often diagnosed, which occurs as afebrile, with diffuse changes on the radiograph. In rare cases, children born prematurely have a similar course of pneumocystis; In very premature infants, pneumonia caused by ureaplasma and Mycoplasma hominis has also been described, the diagnosis of which, however, has not been developed.

In the second half of life, chlamydial pneumonia practically does not occur; aspiration pneumonia is less common, but nosocomial diseases continue to occupy a significant place (about 25%).

Children 6 months - 4 years. In case of community-acquired bacterial pneumonia, both according to our data and according to joint studies in different cities of the country, the most common pathogen is pneumococcus. Pneumococcus is also the leader in older children, but the identification of this age group is justified by the fact that it is in this age group that pneumonia caused by Haemophylus influenzae b is observed. An increase in the incidence of pneumococcal pneumonia begins towards the end of the first year of life, which coincides with a drop to the lowest levels of titers of anti-pneumococcal antibodies received transplacentally by children. During the 1st-3rd year of life, the incidence of pneumococcal pneumonia is maximum (13-25 per 1000 children per year), and pneumococcal pneumonia also predominates among pneumonias complicated by destruction of lung tissue. The severity of such pneumonia may be associated with the virulence of the serotype (3, 5, 9), as well as with the absence of type-specific antibodies in the patient before the disease.

Assessing the effectiveness of the drugs administered to the patient is the only way to decide whether it makes sense to continue treatment with the empirically selected drug or whether it needs to be changed. With the full effect, after 24-48 hours the temperature decreases, the general condition improves, pneumonic changes decrease or, at least, do not increase (the number of wheezing may increase). In these cases, replacement of the drug is not required, and it is better to replace the parenteral drug with an oral one.

In some cases, the results of treatment may be less noticeable due to the persistence of temperature and intoxication phenomena. If this is due to the presence of a focus of destruction in the lung, a drop in temperature can be expected only after its emptying (through the bronchus or into the pleural cavity). With the development of an immunopathological complication (metapneumonic pleurisy), febrile temperature ("non-microbial fever") can last a week. However, in these cases, it is important to identify signs of a partial effect (improved condition and appetite, decreased pneumonic infiltration, decreased cytosis of pleural exudate, etc.) and, refraining from unnecessary drug changes, continue treatment; it is also better to replace parenteral drugs with oral ones.

The lack of effect - persistence of temperature and increase in pneumonic infiltration - allows us to exclude the etiology that the doctor suggested when choosing this drug and prescribe an alternative regimen. Replacement or at least addition of a new antibacterial agent should be carried out after 36-48 hours (and for extremely severe infections - after 24 hours).

Therapy should be continued until the vital activity of the pathogen is suppressed and it is eliminated by immunological mechanisms. The general opinion of most researchers: for pneumonia, treatment should be continued for at least 2-3 days after achieving the effect (fall in temperature, stopping the progression of the process, etc.). As indicated, after signs of effectiveness appear, it is worth switching to oral administration of drugs. In most cases, mild pneumonia is treated for 4 - 6 days, complicated - 8 - 12 days; The experience of shorter courses of therapy (for example, 2 - 3 days for pneumococcal pneumonia [9]) is unlikely to be generalized to widespread practice.

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