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CLINICAL SYMPTOMS AND FEATURES OF THE COURSE OF RESPIRATORY INFECTION IN FREQUENTLY SICK AND EPISODICALLY SICK CHILDREN

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Abstract: The article presents these features of clinical symptoms and the course of respiratory infections (RI) in 146 frequently ill (FIC) and 50 occasionally ill children (OIC). The clinical manifestations of RI in the observed FIC were characterized by a complex of specific and nonspecific symptoms, damage to various organs and systems. The main group of FIC is made up of children aged 1 to 3 years (61%) and 3 to 4 years (22,6%). The number of children with RI at the age from 5 to 6 years is decreasing, and account for 10,9% of the surveyed FIC. In the clinical aspect, acute respiratory infection occupies (ARI) a leading position among respiratory tract diseases in FIC, followed by pneumonia and bronchitis. ARI in FIC in 57,3% of cases occurs with acute rhinopharyngitis. RI in FIC and OIC in some cases is accompanied by intestinal dysfunction, which is explained by incomplete formation of intestinal microflora and frequent use of antibiotics.

Keywords: respiratory infections, frequently ill children, occasionally ill children, intestinal microflora.

Introduction

Repeated upper respiratory tract infections (URT) predominate in the morbidity structure of frequently ill children (LRV); lower respiratory tract infections (LRT) occur in 10-15% of RRP. Other systems of the body (gastrointestinal, urogenital tract, central nervous system and skin) in these children are less susceptible to infections. Compared with the respiratory system, the above organs are the most protected from viral infection [5].

It is known that the respiratory system in children has a narrower lumen than in adults, the mucous membrane is thin, easily damaged, the glands are underdeveloped and Ig A production is insignificant. This contributes to a decrease in the barrier function of the mucous membrane and easy penetration of infectious agents, which can lead to repeated infections. [four].

The reasons for more frequent ARIs may be anatomists - physiological features of the respiratory tract (mucociliary and surfactant systems, structural features of the bronchi), as well as congenital or acquired pathologies, including the immune system, which can affect the incidence of infectious diseases in children [2,7]. BWD are in the dispensary observation group mainly for 1.5 - 3.5 years, then they get sick, ARI less and less, and, like their peers, become "occasionally sick children." Only a small part of them continue to worry parents and doctors with their diseases and their complications [6]. Editor-in-chief of the journal "Pediatrics" of the Russian Federation, prof. GA Samsygina, [5] who has been dealing with the problem of BWD for many years, writes: “In recent years, researchers have begun to notice that breastfeeding and normal intestinal microflora are associated with a significant decrease in the incidence of respiratory infections. Breast milk contains various substances with antimicrobial, anti-inflammatory and immunomodulatory effects. Normal intestinal microflora protects against infection through a number of mechanisms that play an important role in the development of mucous membranes, systemic immunity and tolerance to non-pathogenic antigens. ” Studies have shown [8] that probiotics, lacto- and bifidobacteria can have a beneficial effect on the severity and duration of respiratory tract infection symptoms.

Purpose of the study: To study the features of clinical symptoms and the course of respiratory infections in 146 BWD and 50 EBD.

Material and research methods. Under our supervision, there were 146 BWD

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and 50 EBD at the age from 1 to 6 years hospitalized in GDB No. 1 of Samarkand. Anamnestic study was carried out in order to identify age characteristics and clinical course of respiratory infections, a bacteriological method to determine the seeding frequency of hemolytic intestinal flora.

Results and its discussion. The results of the conducted studies show that out of 146 BWD - 92 (63%) were hospitalized in acute renal failure. The examined children with respiratory infection (RI), depending on age, were divided into 3 groups. 1 group 1-3 years, 2 group 3-4 years, 3 group 4-6 years (diagram 1).

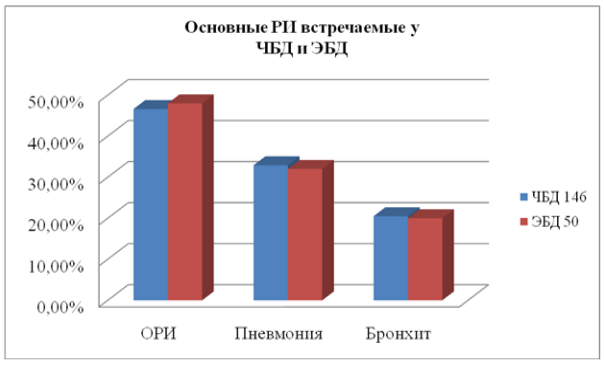
Diagram 1

The NPD of the 1st group from 1-3 years old amounted to 61% (89), 2 groups from 3-4 years old 22.6% (33) and 3 groups from 4-6 years old 16.4% (24). EBD of group 1 accounted for 50% (25), group 2 - 14% (7) and group 3 - 36% (18) (diagram 2). In our observations, children with RI from 4 to 6 years old make up 16.4%, which coincides with the literature data [5].

Diagram2

From the anamnesis it was found that the group of children we observed had a tendency to frequent respiratory infections. On average, they were ill during one calendar year, ARI from 6 to 8-9 times. The study of the clinical diagnosis of the examined children shows that 68 (46.6%) children out of 146 NPDs with ARI, 48 (32.9%) with pneumonia, 30 (20.5%) children with bronchitis (Diagram 3).

Diagram 3



Similar data were observed in EBD, ARI-24 (48%), pneumonia - 16 (32%) and bronchitis - 10 (20%).

In the surveyed NPD, ARI or URT diseases were accompanied by acute rhinopharyngitis - 57.3% (out of 68 in 39), chronic tonsillitis - 17.6% (12), acute laryngitis - 11.7% (8), follicular sore throat - 7.4 % (five). Among BWDs with RIs, herpetic stomatitis was noted - 3.4% (5), purulent conjunctivitis - 2% (3), otitis media - 5.4% (8), protein-energy malnutrition - 10.2% (15), rickets - 8.9% (13), HIE - 8.2% (12), diarrhea - 22% (32).

It was noted that acute rhinopharyngitis in EBD occurs with the same frequency in diseases of the upper respiratory tract, out of 24 children in 16 (66.7%). Chronic tonsillitis and acute laryngitis have not been registered. Diseases of the ENT organs - catarrhal otitis media was observed out of 50 examined in 4 (8%) and follicular tonsillitis in 2 (4%). Protein-energy malnutrition and rickets are absent. Diarrhea was noted in 6 out of 50 (12%).

Also, in BWD, respiratory infections were accompanied by some syndromes. Convulsive syndrome - 6.8% (10), hyperthermic syndrome - 4.1% (6), obstructive syndrome - 29.5% (43), cardiovascular syndrome - 18.5% (27). Acute respiratory failure (ARF) I degree - 26% (38), acute heart failure (AHF) I degree - 6.8% (10). In EBD, convulsive syndrome was noted in 4% (2),

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hyperthermic syndrome was not observed, obstructive syndrome - 14% (7), cardiovascular syndrome - 8% (4). Acute respiratory failure (ARF) I degree - 12% (6), acute heart failure (AHF) I degree - 4% (2).

It should be taken into account that high percentages of diarrhea were observed in BWD (22%) compared to BWD (12%). This is due to the fact that, at a young age, antagonist microbes in the intestinal microflora are in smaller numbers and the normal intestinal microflora is not fully formed. In addition, for frequent diseases of the upper respiratory tract, various antibiotics are used, which are most often prescribed empirically, and destroy antagonist microbes. This situation dictates to pay special attention to the preservation of normal intestinal microflora.

It should be noted that diarrhea was more often recorded in children of group 1, i.e., from 1 to 3 years old, out of 32 in 19 (59.4%), in group 2 (from 3 to 4 years) in 13 (40.6 %). Diarrhea was absent in group 3 at the age from 4 to 6 years. In EBD in group 1, diarrhea was observed in 8% (4) cases, in group 2, 4% (2). Similar data were obtained in group 3.

Thus, the younger the age of the children, the more often the diseases of the respiratory tract are accompanied by diarrhea.

The problem discussed above provides a basis for studying the pathogenic composition of the intestinal microflora in BCD with diarrhea. Basically, the frequency of sowing of hemolytic flora has been determined. The intestinal microflora of 32 BWDs with respiratory infections were studied.

Analysis of the data obtained shows (Table 1) that of 32 patients with respiratory infections accompanied by diarrhea, hemolytic flora was found in the intestinal microflora - St. aureus, E. coli and Candida.

Table 1

Hemolytic intestinal flora in BCD with RI

Number of service	Types of hemolytic flora					
	E.coli	St. aureus	Candida	St. aureus+ E.coli	St. aureus+ Candida	E.coli+ Candida
32	8 (25%)	13 (40,6%)	5 (15,6%)	3 (9,4%)	2 (6,3%)	1 (3,1%)

Hemolytic Escherichia coli was detected in 25% (8) of cases. Among the three opportunistic microorganisms in terms of seeding rate, Staphylococcus aureus ranks first, it was found in 13 (40.6%) patients in monocultures, in associations with E. coli 3 (9.4%) and Candida 2 (6.3%) ... In total, hemolytic staphylococcus was found in 18 of 32 patients, which is 56.3%.

The results of our work convincingly proves that with diarrhea, as a complication of the underlying respiratory infection (RI) in BWD, hemolytic flora increases in the intestinal microflora, among which staphylococcus occupies the first place, Escherichia coli is in second place, and Candida yeast fungi are in third place. ... The detection of hemolytic Candida in the intestinal microflora of BWD is undoubted evidence of the frequent use of antibiotics in the treatment of various diseases.

The sensitivity of the intestinal hemolytic flora to 8 antibiotics (cefazolin, ceftriaxone, gentamicin, macropen, ceclor, erythromycin, augmentin and benzylpenicillin) was studied. Strains of staphylococci and Escherichia coli were found to be resistant to ceclor, erythromycin, gentamicin and benzylpenicillin. If their resistance is from 43.4% to 68.3%, then the sensitivity to these antibiotics in total is from 31.7% to 56.6%. The use of these four antibiotics is not effective if the pathological process is caused by staphylococci and Escherichia coli.

A high sensitivity of the hemolytic flora was noted to cefazolin (Staph. Aureus - 78.3%, E. Coli - 81.6%), ceftriaxone (respectively 86.6% - 73.3%), macropen (88.3% - 85%) and augmentin - (88.3% - 83.3%).

Based on the results obtained, we can conclude that diarrhea often develops in BWD against the background of RI (22% or out of 146 in 32). The intestinal microflora can easily change under the influence of a variety of influences, but most cases depend on the antibiotic used. This condition is considered a serious pathological process and is an additional, and sometimes leading, link in the pathogenesis of RI. The change in the intestinal microflora with the appearance of hemolytic flora requires

timely treatment and restoration of the intestinal microflora in BCD, which is disturbed against the background of RI.

It should be noted that diarrhea in BCD against the background of the underlying disease is not random, but is a natural manifestation of the pathological process, changes in the immunological status of the organism. Apparently, the reduced immune state of the body contributes to the development of RI and the empirical use of antibiotics for treatment leads to a change in the intestinal microflora with a predominance of hemolytic flora - diarrhea, a reduced immune state and again RI. It turns out to be a vicious circle. Our data is consistent with the data of researchers [1,3].

Conclusions

1. The main group of BWD is made up of children aged 1 to 3 years (61%) and 3 to 4 years (22.6%). The number of children with RRI at the age from 5 to 6 years is decreasing, and account for 10.9% of the surveyed BWD.

2. In the clinical aspect, ARI occupies a leading position among the respiratory tract diseases in CWD, followed by pneumonia and bronchitis. ARI in CWD in 57.3% of cases occurs with acute rhinopharyngitis.

3. RI in CWD and EBD in some cases is accompanied by intestinal dysfunction, which is explained by incomplete formation of intestinal microflora and frequent use of antibiotics.

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