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ANALYSIS OF THE EPIDEMIOLOGICAL FEATURES OF DIARRHEAL DISEASES IN CHILDREN IN THE SOUTHERN ARAL REGION

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Resume

Despite the downward trend, the incidence of diarrheal diseases in the Republic of Uzbekistan remains at high levels, which emphasizes the relevance of this problem for our country. The high incidence of diarrheal diseases among the child population, a severe course, especially in early childhood, which determine the mortality rates for this pathology, determines the study of the prevalence, level, structure of incidence, etiological structure, dynamics of detection of infectious agents.

Keywords: diarrhea, intestinal endoecology, immune status, colienteritis, hygiene.

Introduction. Acute infectious diarrhoeal diseases (AIDD) occupy the second place in the world both in terms of prevalence and mortality. Epidemiological studies show that AIDD are an urgent problem not only for developing countries, but also for economically developed countries. According to some reports, about 76 million cases of acute intestinal infections are registered annually in the United States, 325 thousand people need hospitalization, and 5 thousand people die. Although, according to official statistics, the incidence of IDZ in our region is characterized by significantly lower rates, nevertheless, practice shows that this problem is no less relevant for our country.

In this regard, the purpose of this work was to study the prevalence and structure of diarrheal diseases among the children's population of the Southern Aral Sea region. The study was conducted by retrospective analysis of the medical

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histories of 3,463 sick children under 15 years of age hospitalized in the regional infectious diseases hospital and infectious diseases departments of the Khorezm region of the Republic of Uzbekistan.

Comprehensive socio-hygienic research methods were applied and special maps and questionnaires were developed for these purposes, taking into account the conditions of everyday life and regional customs. All the received materials were processed on an IBM personal computer using a special program for biomedical scientific research.

When examining the age structure of the patients, it turned out that newborns with acute diarrheal diseases accounted for only 0.8±0.1% (29 patients), the incidence rate among children from 3 to 7 years of age was also low at 5.3±0.3%. A high percentage of morbidity was observed in children under 1 year of age – 54.7±0.84% (1894 children) and from 1 to 3 years of age – 36.0±0.84% (1246 children). A significant difference in the incidence of children under 3 years of age in comparison with other age groups was confirmed statistically ($P<0.02$). A slight but significant difference between boys and girls was found during static processing of the material (57.7±0.8% vs. 43.2±0.8% $P<0.05$).

Early studies have shown that in the ecologically disadvantaged region of the Southern Aral Sea region, the immune system and intestinal endoecology undergo particularly pronounced changes, and these changes are more significant in children aged 1 to 3 years. Apparently, there are violations in the immune status and the development of diarrheal diseases in them.

When analyzing the etiology of acute intestinal diseases, it was found that a very high proportion belongs to bacterioligically unencrypted infections -1280 children (37.0%±0.8%). The dominant role was played by such nosological units as enterocolitis and salmonellosis caused by enteropathogenic variants of E. Coli – 28.5% ±0.7% and salmonella – 15.0%±0.6%. Dysentery accounted for 9.2%±0.4% of cases, in 8.7±0.3%, diarrheal diseases were caused by opportunistic bacteria, among which proteus Staphylococcus aureus prevailed (3.3±0.3% and 5.4±0.3%,

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respectively).

Further, this material was analyzed depending on the age of the children. As it turned out, the most common diagnosis of colienteritis was made in children under 1 year old – 498 children (50.6±1.5%) and children from 1 to 3 years old – 426 children (43.2±1.5%). In newborns, this indicator is significantly lower (0.5± 0.2%). The proportion of dysentery was highest in children with acute diarrheal diseases in urban and rural children, the following showed: Children living in rural areas have significantly more acute diarrheal diseases associated with salmonella and E. Coli (respectively 16.1±1.2% - 142 children and 29.8±1.5%-262 children) –P<0.05. Nevertheless, diarrheal diseases of unknown etiology were more common – 34.4±1.6% -302 children. In our opinion, the higher incidence of salmonellosis and colienteritis in children is explained by a lower sanitary culture and a lower level of socio–economic conditions in rural areas.

When analyzing the ways of admission to the hospital of patients with acute diarrheal diseases, it was found that the proportion of patients admitted to the hospital "on their own" (1212 children - 35 ± 0.8%) is slightly less than 143 children admitted through the service – 41.3±0.8%. Naturally, the admission of a patient "on its own" has a negative impact on the timely diagnosis, selection of treatment and prevention tactics.

It was revealed that among the patients admitted to the hospital on their own, the etiology of the disease was not established bacteriologically with diarrhea in 34.2 ±1.3%, colienteritis was diagnosed in 32.4 ± 1.3%, salmonellosis in 14.0±0.9%. The number of patients admitted to the hospital in the direction of the polyclinic is 17.2± 0.6%, and 6.5± 0.4% of patients were conducted from other departments and various hospitals. Further, the medical history of 3,493 children was analyzed taking into account the outcomes of their hospital treatment. As these data showed, the vast majority of children were discharged with full recovery (1733 children – 50.0±0.8%), 1095 children were discharged with improvement – 31.6±0.7%, 104 children died (3.1±0.2%).

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It is noteworthy that a fairly high percentage of cases of unauthorized departure of patients from the clinic (292 children – 8.4± 0.4%). The reason for the unauthorized departure from the hospital was the following: the presence of another infant in the family and the mother's inability to stay in the hospital; low sanitary culture of parents who do not want to be treated in the hospital; dissatisfaction with the internal regulations of the infectious diseases hospital and others.

If we consider these data depending on the diagnosis, the following conclusions can be drawn: in colienteritis, diarrheal diseases caused by conditionally pathogenic bacteria and diarrhea of unknown etiology, complete recovery of patients was observed in 46.0 – 56.5% of cases. In contrast, children with salmonellosis and dysentery were discharged with complete recovery in 52.2±2.2 and 40.1±2.7%, compared with the above diseases, no significant difference was found (P>0.05). In this category of patients, the percentage of cases of transfer to other departments or to other medical institutions was relatively high – 13.5 ± 1.5 and 16.9±2.0%. Of particular interest was the analysis of deaths, which was observed in patients with dysentery in 3.8 ± 1.8% of cases, among children with other diseases, this indicator ranged significantly from 3.8% to 12.5%. But the majority of the deceased children were sick with colienteritis and diarrheal diseases of unknown etiology – 38.6 ±4.7% and 37.5±4.7%. Among the deceased, there were 61 boys (58.7±4.8%) and 43 girls (41.3±4.8%) patients.

Conclusions.

The analysis shows that diarrheal diseases are more common in children under 1 year old and from 1 to 3 years old. The prevalence among rural and urban children is in the ratio of 1:2.9, but in the etiology of diseases, especially among rural children, there is a high proportion of colienteritis.

Admission of patients to the hospital "on their own" aggravates the establishment of a clinical diagnosis, the selection of treatment tactics and preventive measures. Discharge of children with full recovery was found more often with diagnoses of salmonellosis, diarrheal diseases caused by conditionally

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pathogenic flora and with undetected etiology, while with salmonellosis and dysentery, children were more often transferred to other departments or medical institutions.

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