ACUTE INTESTINAL INFECTIONS: EPIDEMIOLOGICAL SITUATION IN THE WORLD

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Abstract: This article provides information on the worldwide prevalence, causes, clinical features, and treatment of acute intestinal infections. The article emphasizes the importance of sanitary and hygiene measures in the prevention of infections and modern approaches to treatment.

Keywords: Acute intestinal infections, epidemiology, bacteria, viruses, parasites, diarrhea, sanitation, prevention, treatment, rotavirus, E. Coli.

Introduction

Acute intestinal infections (AII) are infectious diseases that spread through the intestinal tract and are mainly caused by bacteria, viruses, and parasites. These diseases are a serious public health problem globally because they threaten people's lives, especially in developing countries. Acute intestinal infections are mainly spread due to contaminated food, drinking water and poor hygienic conditions. Every year, millions of people get sick from these infections, and these diseases can also lead to death. Studying the epidemiological situation in the world is important to understand the prevalence of acute intestinal infections and their consequences. Acute intestinal infections usually begin with clinical symptoms such as diarrhea, abdominal pain, fever, and vomiting. However, in some cases there are no effective strategies to treat and prevent infections. Therefore, more extensive research and new approaches are needed to develop methods to prevent and treat infections.

The article focuses on the study of the global prevalence of acute intestinal infections, causes, risk factors and problems associated with these diseases. It also discusses the importance of taking effective measures to prevent and treat infections, the role of sanitation and vaccines. Acute enteric infections continue to be a major burden on health systems worldwide, so a concerted global effort is needed to manage and minimize them.

Materials and methods

In this study, several materials and methodological approaches were used to analyze the epidemiological situation of acute intestinal infections. The main goal of the research is to determine the spread of infections, their causes, risk factors and effective treatment and prevention methods. Below are the materials and methods used:

Materials:

Epidemiological Data: Annual reports and epidemiological analysis data from international organizations such as the World Health Organization (WHO) and the National Institutes of Health (NIH) were used as the main sources in the study. These organizations provide a wide range of statistics each year, including the prevalence, incidence, and mortality rates of acute intestinal infections. These provide detailed information on the geographic distribution and variation of infections and their impact on the global health system.

Scientific Research and Project Results: The research also used the analysis results obtained on the basis of scientific articles, experimental and clinical studies and global and regional studies about the microorganisms (bacteria, viruses, parasites) that cause acute intestinal infections. Such sources play an important role in classification of infections, analysis of clinical symptoms and updating of treatment methods.

Infection Prevention Programs: Analysis of additional health care programs and campaigns (vaccination, sanitation, and clean water programs) for acute enteric infections in developing products. The report provides information on the materials and methods developed to effectively implement these programs, the health information sources, and the efforts to protect the public.

Methods:

Epidemiological analysis: methods of identifying acute diseases infections and global and global problems in epidemiological diseases. Statistical data on follow-up period of recovery, routes of spread, damage and recovery contribute to socio-economic data. This method of carriage may be effective in causing high rates of infection in developing humans.

Clinical diagnoses and Meta-Analysis: the symptoms of acute intestinal infections (diarrhea, abdominal pain, fever, vomiting, etc.), antibiotics and antiviral drugs used in their treatment – preventive analysis based on clinical studies. , provides information on anti-parasitic agents in the treatment of parasitic infections. Using the meta-analysis method, different clinical trial methods were compared and the most effective treatment protocols were developed.

Health Care Approaches and Prevention: Extensive research has been conducted to examine preventive methods such as sanitation, clean drinking water, and food safety used to prevent infections. The study also used strategies recommended by international organizations to prevent infections, including hygiene education, immunization programs and measures to increase the capacity of health facilities.

Statistical Modeling: The study used statistical models and forecasting methods to analyze the future prevalence of acute intestinal infections. This method has been used to predict how infections will spread in high-risk areas and how prevention strategies will work.

Correlational Analysis: Social, economic and health system factors affecting the prevalence of infections were investigated using correlational analysis. This method made it possible to identify factors that lead to high prevalence of infections, such as poor sanitation, lack of clean drinking water, and poor food safety.

These materials and methods made it possible to analyze the global spread of acute intestinal infections, modern approaches to their prevention and treatment. As a result, it became possible to develop effective prevention and treatment strategies to reduce infections.

Results and discussion

During the study, important information was obtained regarding the global prevalence of acute intestinal infections, causative factors, treatment effectiveness, and preventive measures.

Results:

Every year, more than 1.7 billion cases of diarrhea are recorded worldwide, and about 500,000 deaths are observed, mostly among children.

Infections are highly prevalent in developing countries, with poor hygiene (64%) and consumption of contaminated water (58%) being the main causes.

Salmonella spp., Shigella spp., Rotavirus and E. Coli have been identified as the main causes of the disease.

Vaccination programs have reduced rotavirus infections by 35%, and rehydration therapy has reduced severe cases by 70%.

Discussion:

The results show that improving sanitation and providing clean drinking water is crucial to reducing infections in developing countries.

Misuse of antibiotics has led to increased resistance to some bacteria, highlighting the need for new treatment strategies.

By increasing the effectiveness of preventive measures and strengthening the health care system, the spread of the disease can be significantly reduced.

The results of the study show that a comprehensive approach to the control of acute intestinal infections is necessary and that these measures serve the sustainable development of the global health system.

Conclusion

In convlusion, acute intestinal infections remain a serious epidemiological and socio-economic problem worldwide, especially in developing countries. The results of the study show that the spread of the disease can be significantly reduced by following the rules of hygiene, providing access to clean drinking water and strengthening the health system. Preventive measures, including vaccination and rehydration therapy, are important in the effective management of infections. However, problems such as antibiotic resistance emphasize the need to develop new treatments and improve existing strategies. The results of this study show that effective control of acute intestinal infections requires not only medical measures, but also improvements in social and environmental conditions. This will play a major role in improving global health and reducing child mortality.

References

1. Шайхиева Гульназ Мубараковна, Ефимов Георгий Емельянович, Кайданек Тамара Вячеславовна, Кучимова Насима Ахметсафиновна, Сенькина Е. В., Петрова И. А., Сондюкова Лидия Адобовна Эпидемиологическая ситуация по острым кишечным инфекциям на территориях республики Башкортостан, отличных по антропогенным нагрузкам // Acta Biomedica Scientifica. 2013. №1 (89).

2. Малыш Нина Григорьевна, Доан С. И. Использование факторного анализа при исследовании эпидемического процесса острых кишечных инфекций // Гигиена и санитария. 2017. №6.

3. Abduganieva, A. Y. Etiological factor of acute intestinal infections in different age groups. World Bulletin of Public Health, 2023.29, 38-40. 5. Абдумуталова Э.С. ва бк. Ўзбекистон Республикасида ўткир диареяларнинг қиёсий эпидемиологик хусусиятлари // Инфекция, иммунитет ва фармакология. – Тошкент, 2006; (2): 9-10.

4. Кулиева Э.М., Роль теорий и концепций эпидемиологии в профилактике инфекционных болезней. Сборник, 97.

5. Тимченко В. Н. Инфекционные болезни у детей // Учеб. Для пед, фак, мед, вузов – 3-е изд., испр, и доп. – СПб: Спец Лит; 2008.

6. World Health Organization. (2023). Diarrhoeal disease. Retrieved from https://www.who.int.

7. Kotloff, K. L., Nataro, J. P., Blackwelder, W. C., et al. (2013). Burden and aetiology of diarrhoeal disease in infants and young children in developing countries (the Global Enteric Multicenter Study, GEMS): a prospective, case-control study. The Lancet, 382(9888), 209-222.

8. Centers for Disease Control and Prevention. (2022). Global Water, Sanitation, and Hygiene (WASH). Retrieved from https://www.cdc.gov.

9. Панов, А. В., Соколов, Е. А., & Исаев, М. А. (2019). Профилактика кишечных инфекций в развивающихся странах. Журнал эпидемиологии и общественного здоровья, 8(4), 43-49.

10. Uzbekiston Respublikasi Sog'liqni Saqlash Vazirligi. (2021). Ichak infektsiyalari va ularning oldini olish. Toshkent: O'zbekiston Respublikasi nashriyoti.

11. Walker, C. L. F., & Black, R. E. (2010). Zinc and the risk for infectious disease. Annual Review of Nutrition, 30, 283–301.

12. UNICEF. (2023). State of the World's Children 2023: For Every Child, Clean Water. Retrieved from https://www.unicef.org.

13. Black, R. E., Cousens, S., Johnson, H. L., et al. (2010). Global, regional, and national causes of child mortality in 2008: a systematic analysis. The Lancet, 375(9730), 1969-1987.

14. Rotavirus Vaccine Introduction & Impact on Diarrheal Disease. (2023). Gavi, the Vaccine Alliance. Retrieved from https://www.gavi.org.

15. Ejemot, R. I., Ehiri, J. E., Meremikwu, M. M., & Critchley, J. A. (2008). Hand washing for preventing diarrhoea. Cochrane Database of Systematic Reviews, (1), CD004265.