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CLINICAL FEATURES OF ROTAVIRUS

Alma Mizdrak*[1], Elmedina Mrkulić[1], Amina Lučkin[1] and Almedina Alihodžić[1]

[1]Clinical Centar University of Sarajevo, Bosnia and Herzegovina.

***Corresponding Author: Alma Mizdrak**
Clinical Centar University of Sarajevo, Bosnia and Herzegovina.

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ABSTRACT
Rotaviruses can cause acute and chronic diarrhea in AIDS patients transsmision is primarily via the faecal-oral route, although epidemics of contaminated water and food have been reported rarely. Rotavirus is present in high titers in the stool of an infected patient with diarrhea. With symptomatic infection, the disease begins after incubation for 1-3 days. The onset is sudden with vomiting, fever, malaise and profuse watery stools. The disease lasts 3-8 days. Dehydration is isotonic. Rehydration and correction of electrolyte imbalance are the primary treatment. The next method is a hygienic-dietary diet.Of the drugs, probiotics are given to regulate the intestinal flora, as well as nitrofuxazide preparations and other drugs that help regulate the intestinal flora. **AIM:** Investigate the frequency of rotavirus infections in relation to the total number of people treated for infectious diseases and in relation to the number of gastrointestinal infections, sex,age and seasonal distribution. In the two-year period from January 1, 2013 to December 31, 2014, a total of 125 patients with odrotavirus infections were treated at the Infectious Diseases Clinic in Sarajevo. In 2014, there was an increase in the number of patient scompared to 2013. The results show that men are more likely to develop rotavirus than women 73-52 or 58% -42% The most common rotavirus infection occurs in infants and young children 56% and then in school children 22%. Rotavirus infections are infections that occur in infants and young children. They are widespread throughout the world, both in developing countries and in countries with a high standard. Worldwide, 139 million cases of gastroenteritis, 25 million clinic visits, 2 million hospitalizations and 440 thousand deaths of children under 5 years of age from Rotavirus occur annually. What is more noticeable are the variations in the occurrence of rotavirus by seasons. Of our 125 respondents, 24% - 30 were in the spring, 18% -23 in the summer, 28% -35 in the fall and 30% -37 in the winter. The data show that rotavirosis occurs in the colder wetter months. coincides with world research. The results show that the number of patients with rotavirus infections in our country is increasing, which is a problem of human and clinical medicine and especially public health.

KEYWORDS: Rotavirosis,infection, sex, age, seasonal distribution, clinical picture.

INTRODUCTION
Several hundred different viruses infect humans. Viruses that primarily infect humans are often spread by respiratory and digestive secretions.[1] Viral causative agents of gastroeneritis in humans are rotaviruses (groups A, B, C) and Eneroadenoviruses (types 40 and 41), which are members of the Adenovirus family. adenoviruses, human calciviruses, and astroviruses.[2] They are responsible for 10% of passenger diarrhea. Rotaviruses can also cause acute and chronic diarrhea in AIDS patients Transmission is primarily via the faecal-oral route, although epidemics of contaminated water and food have been reported rarely. Rotavirus is present in high titers in the stool of an infected patient with diarrhea.[3] With symptomatic infection, the disease begins after incubation for 1-3 days. The onset is sudden with vomiting, fever, malaise and profuse watery stools. The disease lasts 3-8 days. Dehydration is isotonic Rehydration and correction of electrolyte imbalance are the primary treatment. The next method is a hygienic-dietary diet.[4] Of the drugs, probiotics are given to regulate the intestinal flora, as well as nitrofuxazide preparations and other drugs that help regulate the intestinal flora.[5]

The registered nurse is the coordinator in the health care process. The health care plan consists of four consecutive stages: assessment, planning, implementation and evaluation of outcomes.[6] Based on the nurse's diagnosis, as a coordinator she participates together with the team in performing activities such as: Direct provision of physical care enable them to take care, health education, practice and assessment of signs, symptoms and other phenomena and prevention of potential problems, performing diagnostic and therapeutic procedures, education on proper diet, education of patients and families on maintaining personal hygiene to reduce possible infection, maintains contact with the

epidemiological service, reports on the source of infection and possible epidemic.[6] Prevention of rotavirus gastroenetritis is not simple, because a very small infectious dose is required for infection, General measures to prevent the disease: frequent hand washing, before and after physiological needs, before and after meals, careful washing of fruits and vegetables, thorough cleaning and disinfection of contaminated surfaces.[7] Vaccination reduces hospitalization needs due to gastroeneritis amid rotavirus by 96%.[8] In 2009, the World Health Organization recommended that, because of its effectiveness and safety, children around the world be vaccinated against the rotavirus vaccine.[9] These vaccines have reduced the incidence of severe gastroenteritis in infants in Africa and Asia[10], and a reduction in the rates and severity of the disease has been observed in countries where national immunization programs are in place.[11]

Rotarix powder and solvent for oral suspension. Rotavirus vaccine, live-attenuated Powder and solvent for oral suspension.[12] Rotarix is indicated for active immunization of infants aged 6 to 24 weeks for prevention gastroenteritis caused by rotavirus infection.[13]

AIMS

1. Investigate the frequency of rotavirus infections in relation to the total number of people treated for infectious diseases and in relation to the number of gastrointestinal infections, sex and age.
2. Establish the seasonal distribution of rotavirus infection.
3. Determine the distribution of rotavirus infections according to the symptoms of the disease and severity of the clinical picture.

PATIENTS AND METHODS

Patients

- Retrospective study for the period 01.01.2013-31.12.2014.
- Used case histories of treated patients at the Clinic for Infectious Diseases of KCUS
- All patients with rotavirus infection for the specified period were included.

Inclusion criteria

- Patients in whom rotavirus infection has been verified are included, regardless of sex and age
- Exclusion criteria:
- Patients treated with outpatient treatment.

Methods of work

The most common method for proving rotavirus infection is electron microscopy. The advantage of electron microscopy over other methods is its ability to examine submicroscopic organizations of viruses and cells, in which viruses multiply centers.[14-15]

The method of work is descriptive-retrospective analysis of data. Data are taken from disease data, temperature lists and laboratory data. The obtained data will be processed using tables and charts in EXCEL and WORD.

RESULTS

In the two-year period from January 1, 2013 to December 31, 2014, a total of 125 patients with odrotavirus infections were treated at the Infectious Diseases Clinic in Sarajevo. In 2014, there was an increase in the number of patient scompared to 2013.

The results show that men are more likely to develop rotavirus than women 73-52 or 58% -42%

The most common rotavirus infection occurs in infants and young children 56% and then in school children 22%.

The main symptoms of most patients were: vomiting, diarrhea, fever, malaise and abdominal pain, while blood in the stool and skin rash were less common symptoms. In relation to the total number of hospitalized patients 3350, totavirosis accounts for 4% (125 patients).

In relation to the total number of gastrointestinal gastrointestinal infections 625, rotavirosis accounts for 20% (125 patients), while other gastrointestinal etiological factors account for 80%.

In our material, variations in the occurrence of rotavirus by seasons are observed. The data show that rotaviruses occur in the colder and wetter months, ie. in autumn and winter, and occur less frequently in summer.

DISCUSSION

Rotavirus infections are infections that occur in infants and young children. They are widespread throughout the world, both in developing countries and in countries with a high standard. Worldwide, 139 million cases of gastroenteritis, 25 million clinic visits, 2 million hospitalizations and 440 thousand deaths of children under 5 years of age from Rotavirus occur annually.

Rotaviruses are responsible for 6% of total infant and young child mortality, primarily in developing countries. Every year in Europe, 3.6 million rotavirus gastroenteritis occurs in infants and children under 5 years of age, of which 87 thousand are hospitalizations and 231 are deaths.[18]

This was confirmed by I. Wilheim et al. In 2003 in their study showing that Rotavirus is the leading cause of severe diarrhea in children under 5 years of age worldwide and in 20-60% of cases is the cause of hospitalization for gastroenteritis.[16]

Johansen K, Bennet R, Bonhansen et al.) Of children up to 4 years of age indicate that the number of

hospitalizations, but also the financial burden on the health system is associated with rotavirus diarrhea.[17]

Although the proportion of bacterial infections is low. In a study by S. Wildi-Runge et al., Which studied the characteristics of rotavirus gastroenteritis in children up to 4 years of age in Switzerland, 96% of children had a severe clinical picture (Vesikari> 11).[18] In that study, 70% of children were rehydrated parenterally.

A Brazilian study (K. G. Brandt et al.) From 2015 indicates that in most cases, children with mild to moderate disease were not treated in health facilities, which also supports our results.[19]

There were no subjects with complications in our study. Also, F. Albano et al., Who in their study presented and compared rotavirus-positive and negative gastroenteritis of hospitalized children under 4 years of age in Italy, have similar results - the proportion of moderate and severe dehydration in rotavirus diarrhea is 37%, and in rotavirus-negative diarrhea is 23%.[20]

All these researches coincide with our data in the paper where as many as 56% -70 There were infants and small children, then small children 22% -28 patients, the least rotavirus in the working population was 9% - 11 patients.

The most common clinical symptom is: diarrhea in 99% of cases, followed by vomiting in 92%, fever -80% and malaise and abdominal pain that dominate. Blood in the stool was present in only 1% of subjects and skin rash in 2% Our data here coincide with the data of Zvizdić and associates with a similar prevalence of symptoms. Rotavirus gastroenterocolitis in children most often begins with vomiting and fever, lasting 2 to 3 days, and very quickly begins frequent watery stools that continue for several days and (68.2%) of our subjects diarrhea disease usually lasts 3 to 8 days.[21]

What is more noticeable are the variations in the occurrence of rotavirus by seasons. Of our 125 respondents, 24% - 30 were in the spring, 18% -23 in the summer, 28% -35 in the fall and 30% -37 in the winter. The data show that rotavirosis occurs in the colder wetter months. coincides with world research.[22]

Rotavirus infections occur throughout the year, and more often in the colder and wetter months. in autumn and winter, unlike salmonella infections, which are most common in summer. Rotavirus diseases are more common during the winter months, at a time when other infections such as influenza and respiratory virus diseases are more common.[23] The average duration of hospitalization of patients is 8 days, which coincides with the study

The length of hospitalization in patients with rotavirus infection is eight days (interval of 3-16 days) The duration of hospital treatment of our subjects who were hospitalized for rotavirus diarrhea is on average 7 days, which is slightly longer than in European countries where the length of 2.5 to 5 days (2.5 days in Sweden, 5 days in Germany.[24]

CONCLUSION

The results are very important for comparison and finding an appropriate solution to prevent diseases caused by rotaviruses. Rotaviruses cause many personal sufferings, as well as financial losses, which can be reduced by applying adequate measures. As a rule, all measures to prevent rotavirus can be reduced to appropriate sanitary measures: control supplYof drinking water, control of production and distribution of food and hygienic disposition of stool, urine and waste.

Rotavirus (100%) was isolated in all stool patients
The results show that the number of patients with rotavirus infections in our country is increasing, which is a problem of human and clinical medicine and especially public health.

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